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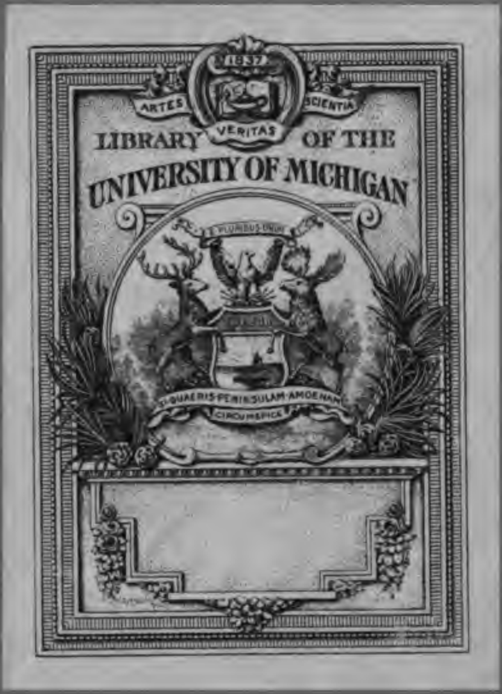

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# CONSUMPTION:

ITS

58723

# CAUSE AND NATURE

BY

ROLLIN R. GREGG, M. D.,

TO WHICH IS ADDED

# THE THERAPEUTICS

OF

# TUBERCULOUS AFFECTIONS,

BY

H. C. ALLEN, M. D.

---

ANN ARBOR, MICHIGAN.
1889.

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# PREFACE.

The germ theory of Koch, like many of its predecessors, utterly fails to account for the cause and nature of consumption. The bacillus tuberculosis may be an effect, but it cannot be a cause. Like many kindred pathological theories, it was not sufficiently comprehensive to satisfy Dr. Gregg, and for over twenty-five years, single handed and almost alone, like Harvey, Hahnemann and other discoverers, he faithfully labored to demonstrate a morbid process more uniform and general in its action — a pathology that would account for the results found in Bright's disease and diphtheria, as well as in tubercular affections. In view of the facts which he collected from various sources, and which for the first time are presented in this volume, the contagious theory did not explain many of the preceding conditions of the tubercle, some of which even "anticipate it by half a life-time." His theory that the cause of consumption is "a loss of albumen from the blood and a consequent disproportion into which such loss must necessarily throw all the other constituents of the blood;" and the terrible bacillus is nothing but "a softening or suppuration of the tubercle, a simple rod of fibrin."

At the time of Dr. Gregg's death the therapeutics of tuberculosis was not completed — in fact only three remedies were partially written — and amidst many professional duties the work has been very slowly accomplished. However, the remedies most frequently indicated are given, but many more may be required, in fact, in the treatment of this deep-seated constitutional affection, any or even every remedy in the Materia Medica may be called for in peculiar idiosyncrasies. It must always be borne in mind in the selection of the exactly similar remedy, that a careful individualization of both patient and remedy is absolutely necessary to attain the required result. For no two patients are alike, hence no two cases of tuberculosis can be alike, and it is the patient, not the tuberculosis, that we are to cure. This fact, upon which Hahnemann so strongly insisted, we are apt to overlook, and to this chiefly our failures are to be attributed.

Next in importance to the selection of the perfectly similar remedy, is its repetition. If we would obtain the best curative results we must allow it time to do its perfect work. It requires time to change morbid action or to rebuild healthy tissue, and if improvement be ever so slow, if it only be in the right direction, the action of the remedy must not be interfered with. Study Hahnemann's rules carefully, and follow them implicitly, is the best rule of practice that can be given.

H. C. ALLEN, M. D.

Ann Arbor, June, 1880.

# INDEX.

PAGE.

Introduction ... 9

I. Summary of the cause and nature of Consumption. 15

II. Discovery of the cause of Consumption ... 20

III. The composition of the human blood ... 22

IV. The circulation of the blood ... 25

V. Nature and uses of the constituents of the blood—albumen, water, blood corpuscles, fibrin, fatty matters, salts, extractive matters ... 29

VI. The mucous membranes ... 34

VII. The source of Albumen ... 40

VIII. The bountiful supply of albumen to the mucous membranes ... 44

IX. Proof of the waste of albumen by the mucous membranes ... 46

. X. Why the mucous membranes are so prone to disease. 58

XI. The consequences of losing albumen ... 62

XII. Proof of the other constituents being left in excess in the vessels when albumen is lost—fibrin, salts, fatty matters, extractive matters ... 68

XIII. The excess of water and its effects ... 85

XIV. The excess of blood corpuscles, and the diseases resulting therefrom—negative testimony, identity of decolorized blood and tuberculous corpuscles, what becomes of the hæmatin ... 90

XV. Disposition of the excess of fibrin ... 109

XVI. What results from an excess of fatty matters—how the excess of salts is disposed of, the excess of extractive matters ... 114

XVII. The contagious or germ theory of the origin of consumption ... 117

XVIII. The minute structure of tubercles ... 133

XIX. Constituents of tubercles, and explanations regarding them—giant cells, transparent tubercular cells, yellow tubercular cells, tubercles of Gross, tubercles of Lænnec, yellow tubercles, the knot

of Virchow, fibrous stage, inflammatory and suppurative stages. cheesy stage, fatty degeneration, cretefication.................................. 139
XX. All classes of organized tissues but one nourished in excess in tuberculosis.......................... 148
XXI. The stages of Consumption—letter to Dr. Formad... 159
XXII. Pneumonia and its relation to phthisis.............. 161
XXIII. Other sources of phthisis........................... 165
XXIV. Rational and scientific ground for hope that Consumption can be cured.......................... 169
XXV. Harsh and irritating medicines must be avoided.... 176
Therapeutics of Tuberculosis......................... 181
Is Consumption contagious........................... 183
Geographical distribution of phthisis............... 185
Moisture—altitude.................................. 186
Climate............................................ 187
Closed establishments in phthisis................... 188
Life in the open air................................ 189
Personal Hygiene................................... 189
Bathing............................................ 190
Eating: How to eat; what to eat; and how to eat it. 190
Salisbury's meat diet.............................. 191
The Homœopathic treatment of phthisis............ 193
The Simillimum.................................... 195
The Three Mistakes.... ........................... 196
Hahnemann's Three Rules......................... 197

# REMEDIES AND THEIR ABBREVIATIONS.

| | |
|---|---|
| Abrotanum, | Abrot. |
| Acalypha indica, | Acal. |
| Acetic acid, | Acet. ac. |
| Aconitum Napellus, | Acon. |
| Actea racemosa, | Act. |
| Agaricus, | Agar. |
| Alumen, | Alumen |
| Alumina, | Alum. |
| Aloe, | Aloe |
| Ambra, | Amb. |
| Ammonium carb., | Amm. c. |
| Anacardium, | Anac. |
| Anisum, | Anis. |
| Antimonium tart., | Ant. t. |
| Apis, | Apis |
| Aranea, | Aran. |
| Argentum nit., | Arg. n. |
| Arnica, | Arn. |
| Arsenicum, | Ars. |
| Arsenic iod., | Ars. iod. |
| Arum triphyllum, | Arum t. |
| Asarum, | Asar. |
| Aurum, | Aur. |
| Badiaga, | Bad. |
| Baptisia, | Bap. |
| Baryta carb., | Bar. c. |
| Belladonna, | Bell. |
| Berberis, | Berb. |
| Bismuth, | Bis. |
| Borax, | Bor. |
| Bovista, | Bov. |
| Bromium, | Brom. |
| Bryonia, | Bry. |
| Bufones, | Bufo. |
| Cactus, | Cac. |
| Cadmium sulph., | Cad. s. |
| Caladium, | Calad. |
| Calcarea, | Cal. |
| Calcarea ars., | Cal. a. |
| Calcarea phos., | Cal. p. |
| Cannabis sat., | Can. s. |
| Capsicum, | Caps. |
| Carbo animalis, | Carbo an. |
| Carbo veg., | Carbo v. |
| Causticum, | Caust. |
| Cepa (Allium), | Cepa |
| Chamomilla, | Cham. |
| Chelidonium, | Chel. |
| Cina, | Cina |
| Cinchona, | Cinch. |
| Cistus, | Cist. |
| Coccus canti, | Coc. c. |
| Cocculus, | Coc. |
| Coffea, | Coff. |
| Colocynth, | Col. |
| Conium, | Con. |
| Corallorhiza, | Cor. |
| Corallium rubrum, | Cor. r. |
| Cuprum, | Cup. |
| Digitalis, | Dig. |
| Drosera, | Dros. |
| Dulcamara, | Dul. |
| Elaps, | Elaps |
| Erechthites, | Erech. |
| Erigeron, | Erig. |
| Euphrasia, | Euph. |
| Ferrum, | Fer. |
| Ferrum iod., | Fer. iod. |
| Ferrum phos., | Fer. phos. |
| Fluoric acid, | Fl. ac. |
| Gelsemium, | Gel. |
| Gettisburg, | Gett. |
| Graphites, | Graph. |
| Grindelia, | Grind. |
| Hamamelis, | Ham. |
| Helix tosta, | Helix |
| Helonias, | Helon. |
| Hepar, | Hep. |
| Hydrastis, | Hyd. |
| Hydrophobinum, | Hydroph. |
| Hyoscyamus, | Hyos. |
| Hypericum, | Hyper. |
| Ignatia, | Ign. |
| Iodum, | Iod. |
| Ipecacuanha, | Ipec. |
| Iris versicolor, | Iris |
| Kali bich., | Kali b. |
| Kali brom., | Kali br. |
| Kali carb., | Kali c. |
| Kali iod., | Kali iod. |
| Kali mur., | Kali mur. |
| Kaolin, | Kaolin |
| Kreosotum, | Kreos. |
| Lachesis, | Lach. |
| Lac caninum, | Lac can. |
| Ledum, | Led. |
| Lilium tig., | Lil. |
| Lycopodium, | Lyc. |

| | |
|---|---|
| Malandrinum, | Maland. |
| Magnesia phos., | Mag. p. |
| Manganum, | Mangan. |
| Medorrhinum, | Med. |
| Melilotus, | Mel. |
| Mercurius, | Mer. |
| Millefolium, | Millef. |
| Moschus, | Mosch. |
| Muriatic acid, | Mur. ac. |
| Myrtus communis, | Myr. |
| Natrum carb., | Nat. c. |
| Natrum mur., | Nat. m. |
| Natrum sulph., | Nat. s. |
| Niccolum, | Nic. |
| Nitric acid, | Nit. ac. |
| Nux moschata, | Nux m. |
| Nux vomica, | Nux v. |
| Opium, | Op. |
| Oxalic acid, | Ox. ac. |
| Oxytropis, | Oxyt. |
| Petroleum, | Petr. |
| Pinus palustris, | Pinus p. |
| Pix liquida, | Pix |
| Platina, | Plat. |
| Phosphorus, | Phos. |
| Phosphoric acid, | Phos. ac. |
| Prunus spinosa, | Prun. s. |
| Psorinum, | Psor. |
| Pulsatilla, | Puls. |
| Pyrogen, | Pyr. |
| Ranunculus bulb., | Ran. b. |
| Ranunculus scel, | Ran. s. |
| Rheum, | Rheum |
| Rhus tox., | Rhus tox. |
| Rumex, | Rumex |
| Ruta, | Ruta |
| Sabina, | Sab. |
| Sambucus, | Samb. |
| Sanguinaria, | Sang. |
| Sanicula, | San. |
| Sarsaparilla, | Sars. |
| Secale, | Sec. |
| Senega, | Sen. |
| Selenium, | Sel. |
| Sepia, | Sep. |
| Silicea, | Sil. |
| Silphium, | Silph. |
| Sinapis nigra, | Sin. n. |
| Spigelia, | Spig. |
| Spongia, | Spong. |
| Squilla mar., | Squil. |
| Stannum, | Stan. |
| Sticta pul., | Stic. |
| Staphisagria, | Staph. |
| Stramonium, | Stram. |
| Sumbul., | Sumb. |
| Sulphur, | Sulph. |
| Sulphuric acid, | Sulph. ac. |
| Syphilinum, | Syph. |
| Symphytum, | Symp. |
| Tabacum, | Tab. |
| Tarantula, | Tar. |
| Terebinth, | Ter. |
| Teucrium, | Teuc. |
| Theridion, | Ther. |
| Thuja, | Thuja |
| Trillium, | Tril. |
| Tuberculinum, | Tub. |
| Veratrum, | Verat. |
| Zincum, | Zinc. |

# INTRODUCTION.

It would seem that there has already been a surfeit of essays written and of books published upon consumption; but, notwithstanding this, the writing and publishing will and must go on, until the true nature of the disease has been fully fathomed. In a matter so important as a disease that carries off one-fifth of the people of the civilized world, there is and can be no stopping the research or writing upon the subject, until the truth and the whole truth in regard to it has been brought out. For this reason no apology is needed, nor will one be offered, for the appearance of the present volume.

There have been many theories put forth to explain tubercles and their causes; but not one of them has stood the test of time and careful scrutiny, and none of them has been generally accepted as true. Several of them have, for a time, received a partial acceptance, and then, either through old facts being more carefully considered, or new ones found and applied to them, they have been discarded; only, however, to give place to others, that have finally shared the same fate.

Strangely enough, in all the investigation and consideration of the subject, it seems never to have occurred to any one to account for anything in consumption but the tubercle; and, yet, there are many serious and alarming accompaniments of the disease which are only secondary to the tubercle in their ominous indications, and which, indeed, are sometimes just as serious in what they mean.

To illustrate: There is the great emaciation of consumption, which is almost as characteristic of the disease as the tubercle itself, appearing in many cases *before* it, and not infrequently progressing rapidly, or quite so, when the patient is eating heartily, digesting fairly well, and suffering little, if any, to cause it. This is always an alarming condition. Then there is the too watery blood of the consumptive all the way through the disease, from its very inception to its close in death, and always preceding the tubercle, often for months and sometimes for many years. This, as we shall see, is one of the most important factors in the disease. The tubercle could seldom or never be produced without it. Next there are the night sweats, which are so characteristic of consumption, much more so than of many other diseases, and which also sometimes appear before the tubercle. Again, there is the fatty liver of the disease, which not often precedes the tubercle, but which remains to be accounted for just as much as the tubercle, in a theory that truly accounts for this pathological formation. Finally, there are the scrofulously enlarged joints, and the thickened, curved and ridged finger-nails, besides other things, that are quite as characteristic of the consumptive subject as almost anything else in his disease; but which, it is repeated, nobody seems ever to have thought of taking into account, or, at least, of accounting for the cause, in the many theories of tubercle.

Now, all know that these several attendant conditions, or the most of them, are as much a part of consumption—each being a segment of the same circle—as is the tubercle itself. And it must be clear to all, that a true theory of tubercle and its cause, or causes, must also as truly account for all its characteristic accompaniments; and especially so for such as *precede* the tubercle, and are quite as significant; indeed, are almost its certain harbingers.

By either one or two of these conditions, physicians, and even intelligent laymen, can often select in childhood those children who will be the future subjects of consumption. These two conditions are simply: first, the emaciation, or arrested development of the muscular system, shown by many such children in their small necks, puny arms, scrawny chests, bodies, etc.; and, secondly, by the evidences of a too watery state of the blood, shown by the pale skin and blue veins of such subjects. Does this not, therefore, show the necessity of knowing all that is possible to know of the cause, or causes, of these conditions? In many of these very cases it is years, and sometimes half a life-time, before the first tubercle appears; some of the subjects going on until middle life, or later, before the disease for which they were marked, or which they inherited at birth, develops.

In the matter of treatment, moreover, does not all this show what a great advantage there would be in knowing, so long in advance, the cause, the precursor of tubercle, and that, unless arrested, it was certainly coming; so that by controling the former, the latter might be prevented from ever developing? Can there be reasonable hope of a generally successful treatment of consumption ever being established, without knowing the cause or causes of the attendants of tubercle, so many of which are its precedents and almost certainly lead up to it? The disease is a whole, in all its more prominent manifestations, and it must be studied as such, and treated accordingly, to attain the least success in either. But here the reader may say this is leading into as great or even greater complications than we now have. Not so, if we can find the true key to the subject. Nature is *never* complicated in her work, and only seems so to us when we fail to get the key to her operations. With this in hand, the most intricate problems she presents can be solved, carefully examined, and reduced to the understanding of all of fair intelligence, as we shall see with the subject under consideration.

There is a theory, or, rather, there is a great physiological and pathological fact underlying this whole subject, which is one of the most simple of all the facts in disease, and which accounts, not only for the various phenomena named, but also for much besides that it is important should be understood. This fact has been long known, but never before applied, except by the author in various papers; and it is one that cannot be gainsaid. Indeed, in what is to follow, the effort will be made not to present any facts but such as will stand the test of the most thorough scientific scrutiny.

To present the disease as the author looks upon it, in what he regards as its only true light, and as a whole in its immediate cause and in all its results, it is necessary to step entirely outside of all the theories and speculations hitherto indulged in concerning it; in so far, at least, as their affording any aid in the solution of the subject. Facts that are simple, and that cannot be overturned or weakened in the force of their application, will nevertheless be kept constantly and prominently in view. We cannot understand the subject unless we simplify it far beyond what has ever before been attempted; and this will be the aim of this volume.

The pathological fact alluded to as the cause of consumption, and the more salient points arising under it, will be presented as a summary in the first chapter, that the reader may have before him at the outset the essential or leading facts that are claimed; then all will be fully elaborated and proved in succeeding chapters. To do this, many numerous and important quotations will be given from the best authorities on the various points; and if this should seem superfluous, or prove to be tedious to the best educated professional readers, they must remember that all are not as well up in their reading as they; and those who are not, are persons who require all the facts they can get to fortify them in their knowledge and management of so formidable a disease as this has always proved to be, not only to the members of the medical profession, but to the highly educated as well.

The symptoms and pathology of the disease are so elaborately given in many works upon phthisis, that it seems superfluous here to repeat them. The cause, or causes, of the disease, are what we need to know more than all else, for in that lies our *only* hope of preventing the development of the disease in any case, or of properly managing it after it has begun. It is, therefore, the main object of this volume to show both the immediate and remote causes of phthisis, which are so little understood, instead of giving symptoms and pathological developments that are now known to all; and thereby lay the foundation for preventing the disease in many cases, so that nothing further shall be needed.

# CONSUMPTION.

## CHAPTER I.

### SUMMARY OF THE CAUSE AND NATURE OF CONSUMPTION.

Having finally secured the last link that is thought requisite, in the long chain of positive as well as negative proof, to clear up the mystery which has so long hung over the cause and nature of Tubercle, I am now prepared to reaffirm, even more positively than ever before, that the *Cause* of Consumption *is a loss of albumen from the blood through irritated and abraded mucous membranes.* This is the key to all the characteristic conditions and developments of phthisis.

It is a loss of albumen from the blood, through the mucous membrane of the kidneys, that causes Bright's disease of these organs, and that, in its chronic form, takes the life of almost every sufferer from that disease. If such, then, is the cause, and such the fatality of Bright's disease, which are well-known facts, it would seem that a similar, but more profuse waste of albumen through those still more vital organs, the lungs, must be equally serious in all its stages, and equally fatal in its results, if proper measures are not speedily taken to stop such waste before fatal conditions have arisen.

The expectoration of consumptives, and all their other catarrhal or mucous discharges, from whatever organ, is mostly albumen, and a direct loss of so much of this constituent from the blood. Hence, it is the waste, in this manner, of a portion of this most indispensable element of animal life, that causes consumption and its many attendant phenomena—its tubercles, its great emaciation, its too watery blood, its night sweats, its dropsies, its fatty livers, its adhesions of the pleura, its enlarged joints, its thickened, curved and ridged finger-nails, etc.

The albumen of the blood, in its natural state, is similar to the white of the egg, and furnishes almost the only nutrition for the whole muscular system; hence the great emaciation so characteristic of consumption, as one prominent result of its loss—the muscles being robbed of a large portion of their only food by its profuse waste.

The loss of any portion of it, furthermore, throws all the constituents of the blood into a *disproportion*; in other words, destroys that proper proportion among them which nature is at the greatest pains to create, and which is so necessary to health to have maintained; and leaves a relative excess in the circulation of all other constituents, which was not designed, and against the evil effects of which the system cannot fully protect itself while the waste is permitted to go on.

The loss of one ounce of albumen, for instance, destroys nearly one pound of blood for all purposes of healthy nutrition, and leaves a relative excess in the blood-vessels of

| | | |
|---|---|---|
| Water, . . . . . | 5¾ | ounces. |
| Blood Corpuscles, . . . | 7 | ounces. |
| Fatty Matters, . . . . | 9 | grains. |
| Fibrin, . . . . . | 15 | grains. |
| Salts, . . . . . . | 41 | grains. |

The excess thereby left of these constituents is then the same as foreign matter in the blood, and is found depositing in living tissues, creating diseases that correspond to the element thus disposed of, and the part in which deposited; or it is expelled from the system entire through every outlet that nature can command.

The excess of water causes the blood to be too watery during the whole course of the disease, from the commencement of the waste of albumen through till the case closes in death; and it is this too watery condition of the blood which in turn causes "night sweats"; that is, nature is *compelled* to establish them, for the purpose of throwing off a greater or less portion of the excess of water, and thus do what it can to save the patient as long as may be from more immediately fatal results. Were this not done in this or other ways, the blood would soon become so very watery under the constantly accumulating excess of water —as is sometimes the case in Bright's disease—that all the blood corpuscles would speedily be destroyed, and most of the soft tissues of the whole body be washed to death. Dropsy, which usually comes in later, is still another, and the last conservative effort in this direction in the interests of life, as it, too, is a means of expelling a portion of the excess of water from the blood-vessels into the surrounding tissues, and thus aids a little time longer in avoiding worse immediate consequences.

The blood corpuscles left in excess, are *decolorized* by circulating in the still too watery blood, or serum, notwithstanding the night sweats and dropsy throw off a large portion of the excess of water; and these decolorized corpuscles are then deposited in the capillaries or smallest blood-vessels, where they shrivel, to become the so-called tuberculous corpuscles, which are organized into tubercles, and which have *no other origin but this.*

The excess of fatty matters causes the fatty livers so common in consumption, and other so-called fatty degenerations, fatty tumors, and the like.

The excess of fibrin causes those adhesions of the pleura, that is, of the surface of the lungs to the inner surface of the ribs, to the heart, or to each other, which M. Louis says are almost without exception in consumption, and which are often among the most serious of all its complications. And, finally—

The excess of the salts causes most forms of calculi, enlargements of the joints and bony tumors, so common in scrofulous and consumptive subjects, ossifications and other more or less similar morbid developments.

Not a case of consumption, even in its first stage, or, indeed, in its first threatenings, can, therefore, be cured, nor can a rational hope of its cure be entertained, short of *healing* the mucous membranes and putting a stop to the further waste of albumen. And that all this can be done by judicious treatment, in the majority of cases, in the first stage of the disease—excepting in those who have inherited feeble constitutions—there can fortunately be little ground for question. There is, in fact, one of the most hope-inspiring provisions to be found in all nature, bearing directly upon this very point, which shows conclusively that this can be accomplished, and which will be fully explained in its proper place.

No one can maintain vigorous health for a day, while sustaining a loss of this most essential of all the elements of animal life, viz., albumen; and none can live under its continued waste. This fact applies to all the mucous membranes. Consumption of the lungs may and does arise, or is often started, by the waste of albumen through the mucous membranes of any of the other organs possessing it. For instance, large numbers of confirmed dyspeptics ultimately die of consumption, as do many of those suffering from chronic diarrhœa, chronic dysentery, and the like. The same is true, in a marked degree, of women suffering from chronic leucorrhœa. In all these cases albumen is lost from the blood the same as through the kidneys or lungs; and the bloodcorpuscles left in excess are decolorized the same and deposited in the lungs, in many such cases, to commence the growth of tubercles. This explains why tubercles are quite often begun in the lungs, exciting a *dry* cough, before there has been any expectoration therefrom to account for them in that way.

These views, or discoveries, it is the author's purpose to elaborate and prove, as fully as may be, in the following pages; and he asks that fair and candid consideration of them which the great importance of the subject demands.

## CHAPTER II.

## DISCOVERY OF THE CAUSE OF CONSUMPTION.

September 21st, 1861, after several years of unsuccessful research for the proper explanation of a fact that occurs in the early stage of many consumptive cases, the author was first impressed with the conviction that a loss of albumen from the blood, and the consequent disproportion into which such loss must necessarily throw all the other constituents of the blood, was the cause of consumption—the key to the production of tubercles and all their attending phenomena; and he has pursued this thought, or this solution of the question, more or less persistently ever since, with unvarying confidence in its truth.

It required all the time that could be commanded from the pursuit of active professional duties during the subsequent five or six years, to collate the evidence necessary to sustain this view of the subject. In the meantime the contagious theory of the cause of tubercle had been more prominently than ever before brought forward in Europe, in opposition to all other theories; and this has finally ripened into the germ or bacillus theory.

This contagious theory was then, and is now, felt and believed by the author to be a false issue as against the multitude of facts which had been collected and will be found in this volume, sustaining an entirely different view of the subject; that it did not, in the remotest degree, explain the cause of the preceding and accompanying conditions of the tubercle, some of which not unfrequently anticipate it by half a life-time, even if it could with any show of reason be assumed to explain anything else. But it was not until within the last two years, that the proof was secured to show that the so-called germ of the tubercle, the bacillus, is nothing but a result of the softening or suppuration of the tubercle, a simple rod of fibrin, as will be shown in a subsequent chapter; and, like all else, coming in as one of the consequences of the loss of albumen. It is ever thus that the truth seems compelled to wait upon error in all its hydra-headed forms, before the world is allowed to reap the great advantages that the former always brings.

With what we know of the loss of albumen through the kidneys, and its uniformly fatal results in chronic Bright's disease, if it can be shown that an equal or greater loss of it is sustained through the lungs in consumption, we may well stop and consider whether this be not actually the cause of a scourge so terrible as to destroy one-fifth of the human race. That a large amount of albumen is expectorated from the lungs by consumptives, and thereby lost from their blood, and also lost to their nutrition, will be proved beyond the possibility of question, when we reach the point for introducing the evidence.

For a clear and correct comprehension of this claim, or theory, and all that is to follow in its proof, the reader must first have as accurate knowledge as may be obtained (if, perchance, he is without such knowledge now), of the composition of the blood, of the nature and uses of its several constituents, and of its capillary circulation; and should also know the structure of the mucous membranes, how albumen is conveyed to them for nutritive purposes, but there wasted in part through said membranes by disease in such cases, to cause what is claimed. To aid all who may actually need, or wish it, in securing this knowledge of the basis of our work, the essential facts upon the points named will be presented in as clear a form as possible, beginning with the composition of the blood.

## CHAPTER III.

### THE COMPOSITION OF HUMAN BLOOD.

1000 parts of healthy blood contain, of

| | | |
|---|---|---|
| Albumen, . . . . | 70. | parts. |
| Water, . . . . | 403. | " |
| Blood Corpuscles, . . | 512. | " |
| Fibrin, . . . . | 2.2 | " |
| Fatty Matters, . . . | 1.3 | " |
| Salts, . . . . | 6.03 | " |
| Extractive Matters, . . | 5.47 | " |
| Total, . . . | 1000.00 | |

The proportion of the corpuscles, and of the water, given in this table, is very different from that to be found in the tables of the books, for the reason that nearly all authors, in constructing their tables of the composition of the blood, give the proportion of the corpuscles as that of their *dried residue,* instead of in their moist state, thereby reducing their ratio to only about 131 in 1000 parts of blood, instead of 512 as it really is. Then these authors add the water dried out of the corpuscles to the water of the serum, bringing this up to 784 parts, instead of 403 parts; thus making an artificial division that does not exist in nature, and one that is fallacious and misleading. It certainly is not scientific to force a division, or partial decomposition of any natural substance, or compound, whose nature and relations we may wish to carefully examine, and then proceed in our investigations under such dismemberment. We shall surely go wrong if we do. If we are to consider the blood in all its bearings upon health and disease, we clearly must investigate it *as it circulates in the blood-vessels*, and not as something else that it may be changed into, by various processes; otherwise at the end of all our research we shall be no better, but actually worse off, than at the beginning. The proportion of the corpuscles given in the table is on the authority of that most reliable of all writers on physiological chemistry, Professor C. G. Lehmann.

Something should be said, moreover, of the proportion of fibrin given in the table. This seems very small for the work that fibrin will be shown to do, or the uses to which it is put. But its ratio is also given, by all authors, in the dried state; and as it is the lightest, or one of the lightest, of all known substances when dry, if its proportion were given in its moist state it would be much greater. Besides, the author of a late work upon Physiology says:

"The average quantity by weight of fibrin in human blood is said to be .2 per cent., but the amount which can be obtained from a given quantity of plasma varies extremely; the variation being due not only to circumstances affecting the blood, but also to the method employed."

Still, it seems scarcely possible, that all the old and most careful chemists were entirely wrong in their analyses, especially when each corroborated the other so strongly; so, had they given us the proportion of the fibrin of the blood in the moist state, holding the amount of water that it needs to enable it to perform its highly important vital functions, and without which it cannot perform them at all, they would then have probably given nearly the right ratio of it. This would have brought its proportion up to perhaps ten or twelve in one thousand parts of blood; or, possibly, owing to the extreme lightness of dry fibrin in comparison with the other elements of the blood, and the much greater weight that the requisite amount of water would give it, as high as fifteen parts in the thousand of blood. Even at that, its ratio is very small, only one and five-tenths per cent. But, one explanation of this is, that the changes which take place in the tissues that fibrin nourishes, are performed very slowly in comparison with many of the other soft parts; therefore, much less of their food is required daily, than that of parts in which changes go on much more rapidly, like the muscular and some other cells.

Physically, the blood is divisible, as it circulates, into two very distinct and characteristic elements; viz., first, its corpuscles, or cells, amounting in the aggregate to a little over one-half, as already shown by the table; and, secondly, the serum or the water of the blood, holding in solution the albumen, fibrin, salts, fatty and extractive matters. After coagulation on being drawn, however, the fibrin and corpuscles are all or nearly all held in the clot, which, upon contracting, as blood-clots always do, the water, albumen, salts, fatty and extractive matters are mostly forced out of the clot and appear in the water around it, in which it floats readily if contained in some vessel so that it can. The fibrin and the corpuscles go together in the clot, and thus their separation is forced from the other constituents.

## CHAPTER IV.

### THE CIRCULATION OF THE BLOOD.

The blood vessels, as all know, extend to and through every part and tissue of the animal organism (excepting through the cartilages) in almost infinite ramifications, carrying the blood into every organ, and the smallest subdivisions thereof; and they are all, without exception, *continuous* tubes, which go out from the heart as arteries, and back to it as veins, without there being in health the slightest openings, or breaks, anywhere in their walls. That great arterial trunk, the aorta, sends off branches of arteries throughout its course, and these divide and subdivide into thousands, yes millions, of minute arteries which traverse every part of the soft tissues.

The walls of all arteries possess, or are constituted of, three coats: an outer, middle, and inner coat. These three coats extend to the extreme terminations of the most minute arteries, and there the outer and middle coats end, are left off, and the inner coat, and that alone, goes on a small fraction of an inch (about the tenth), continuing the vessels, without a break in their walls, into the commencement of the smallest veins. Then the outer and middle coats are again resumed and possessed by all the veins throughout their whole course back to the heart.

The small fraction of an inch of the terminal arteries spoken of, which has but one coat, and that an exceedingly delicate one, constitutes what are called the capillaries, or capillary blood-vessels, and it is through the "fine, transparent, homogeneous membrane," constituting their walls, or, rather, through the walls of the thousands of these in every part, "that all the phenomena of nutrition and secretion are performed."

These capillary vessels are also the parts in which all the initiatory steps are taken, for the growth and development of all tubercles; therefore they are so indissolubly connected with our subject that it becomes very necessary to fully understand them and their functions, hence a more complete description of them is quoted from Wilson's Anatomy. He says:

"The arteries do not terminate directly in veins; but in an intermediate system of vessels, which, from their minute size (about $\frac{1}{3000}$ of an inch in diameter), are termed *capillaries*, (capillus, a hair). The capillaries constitute a microscopic net-work, which is distributed through every part of the body, so as to render it impossible to introduce the smallest needle point beneath the skin, without wounding several of these fine vessels. It is through the medium of the capillaries, that all the phenomena of nutrition and secretion are performed. They are remarkable for their uniformity of diameter and for the constant divisions and communications that take place between them, without any alteration of size. They inosculate on the one hand with the terminal ramusculi of the arteries; and on the other with the minute radicles of the veins."

Of the internal coat of the arteries, which constitutes the only coat of the capillaries, he says:

"The *internal coat* is a thin serous membrane, which lines the interior of the artery, and gives it the smooth polish which that surface presents. It is continuous with the lining membrane of the heart, and through the medium of the capillaries with that of the venous system."

Gray, in his Anatomy, says of this one coat of the capillaries:

"The walls of the capillaries consist of a fine, transparent, homogeneous membrane."

We will now return to a further consideration of the blood, or to some important points in its circulation through this vast system of vessels, but more especially through the capillaries.

It will be seen by the figures to be given in the next chapter of the size of the blood corpuscles, and the size of the capillary vessels as given by Wilson, that the two correspond very closely in their diameters, that of the latter being a little less than the larger corpuscles; while it might be added that Virchow says there are many capillaries in every part so small that no corpuscles ever enter them except when a part is congested.

The blood corpuscles are simply *floated* in the serum, propelled by the strength of its current, and it is the force of the heart's action, as is fully understood, that drives the whole out and on through the minute divisions of the arteries, to and through the capillaries. And all the corpuscles, without exception, must, and do, pass through the capillaries, in a ceaseless round, in health, during the entire lifetime of each; and, they being of about the same diameter of these minute vessels, have to pass through them generally in *single file.* Indeed, many of the larger corpuscles are seen to roll up partially upon themselves, at their edges, as their disc shape permits of their doing, to enable them to pass through the smaller capillaries. And being semi-solid organized bodies, they never, in health, or while the vessels remain unbroken, do, or can, leave the latter, or escape into the tissues outside, but are kept in continual motion out and back from the lungs and heart, through the vessels in every part of the system.

It is entirely different, however, with the serum, or watery part of the blood. The "transparent, homogeneous" walls of the capillaries, though "it is not possible to descry any porosity" in them, are nevertheless exceedingly porous to the water of the blood, and everything it holds in solution in it, as albumen, fibrin, salts, fatty matters, etc., and pass all readily and freely through them to the parts outside, to be there held in the small insterstitial spaces of all parts, and used in nourishing all tissues and repairing the waste that is constantly taking place in them.

All the nutrition, for all kinds of tissues, is held in the serum of the blood, as already shown, and carried to them by the arteries, then *through* the walls of the capillary blood-vessels, as described, never a particle of it passing through the walls of any, even the smallest arteries, before reaching the capillaries, or through the coats of the finest veins. Even the walls of both arteries and veins have to be nourished by means of, and through the single coat of the capillaries that are profusely distributed everywhere throughout said walls to afford them their nutrition. Arteries or veins appear not to have the power to take any nourishment for any portion of their structure from the current of blood that is passing through them. The absolutely essential thing in the nutrition of all parts appears therefore to be, that the nutriment must first be strained, so to speak, through the walls of capillary blood-vessels. And here, within these walls, as we shall see, is the growth of tubercles begun and maintained, no matter to what size they may grow. Hence the direct connection of the capillaries with our subject, and the great importance of thoroughly understanding all that is known about them.

The walls of the capillaries are so exceedingly delicate and elastic that they are among the most distensible, or dilatable, of all the minute passages in the animal organism. Under congestion from any cause, these walls are at once, or readily, distended into protuberant sacs, until the congestion is dispersed or ends in suppuration; all of which, as we shall see, has the most intimate bearing upon and relations with tubercles and their development.

## CHAPTER V.

## NATURE AND USES OF THE CONSTITUENTS OF THE BLOOD.

Having now passed in review the most essential points in the composition of human blood, and its capillary circulation, we will next consider the nature and uses of its several constituents, taking them in the order they stand in the table, and beginning with

### ALBUMEN.

This is the most nutritious, and in other respects one of the most highly important, of all the constituents of the blood. It is, indeed, the one element upon which the whole muscular system almost solely depends for its nutrition. There is nothing else in the blood that can be used to repair and replace the muscular cells proper, as they are being worn out by use, and keep up their strength and activity.

Carpenter, page 112, says:

"The great mass of those tissues of the body which belong to the *cellular* type is generated at the expense of albuminous matter."

And on page 56, he also says:

"It has been recently affirmed by Prof. Liebig, that the characteristic solid constituent of muscle, which has been usually known under the designation of *fibrin*, is in reality essentially conformable in all its chemical relations with coagulated albumen; and is at any rate much more nearly allied to it, than it is to the fibrin of the blood."

The white of eggs is the purest form of albumen known in nature. That of the blood ranks next in purity, when it is separated from the other constituents; but as it circulates in the blood-vessels, it is dissolved and held in solution in nearly six times its quantity of water, besides being intimately mixed and commingled with the salts, fibrin, blood corpuscles, and fatty and extractive matters.

In *one thousand* parts of blood there are, as the table shows, *seventy* parts of albumen, while there are only *six* parts of salts, *two* parts and a fraction of fibrin, and *one* part and a fraction of fatty matters; and these with albumen are all the *nutritious* elements there are in the blood. All three of the last named constituents combined furnish less than ten parts in the one thousand of blood, or less than one to the hundred, for nutritious purposes; so that albumen is and must be the sole element depended upon to primarily build up, keep in continual repair and maintain the strength and activity of the muscular system. It will therefore be seen what its continued daily loss, in any considerable quantity, must mean.

### WATER.

Of the nature of the water of the blood, aside from any possible life-sustaining properties it may have received from having been under the influence of a vital force, it is unnecessary to say more than that it can be little, if any, different, when the other constituents are wholly separated from it, than chemically pure water found elsewhere.

Its principal uses may also be summed up in a few words. It serves the purposes of a solvent for the other constituents of the blood, excepting the corpuscles; supplies the proper amount of fluid to the tissues to keep them in a pliable, yielding and active state; and it floats the corpuscles, carrying them through every blood-vessel, small as well as large, of the entire body; but it is not, in any proper sense, nutritious, that is, it is not used to make solid tissues.

### BLOOD CORPUSCLES.

The blood corpuscles are minute, semi-solid, organized bodies, shut sacs or cells, each complete in itself and disconnected from and independent of all the others as they circulate, flattened upon their opposite sides into more or less of the disc shape, of the $\frac{1}{4000}$ to the $\frac{1}{2800}$ of an inch in diameter, and about the $\frac{1}{12400}$ of an inch in thickness, each one of them being closely invested with a very delicate membrane, which constitutes its cell-wall, and in which is enclosed a gelatinous, granular substance called *globulin.*

The principal, if not the only function of the corpuscles is to carry oxygen from the air which they meet in the lungs, to all parts and tissues of the body, and carbonic acid gas from all organs and parts back to the lungs, to be exhaled. But in and of themselves they furnish no nutriment to any class of tissues, any more than does the water.

The duration of the life of each corpuscle, as nearly as can be determined, is about six weeks. In a healthy and unbroken state of the blood-vessels, never any of the corpuscles leave the vessels, but keep up their ceaseless rounds, out through the system and back to the lungs, as shown, until each in turn completes its term of life, then dies, is broken down, dissolved in the serum and excreted into the bowels, to be carried off from there as worn out, useless or refuse matter; while new corpuscles are being constantly made by or in the lacteal vessels and lacteal glands, and passed on from these into the circulation through the thoracic duct and left subclavian vein, to take the place of those that are as constantly going to decay and dying of old age.

The corpuscles are, as is so well known, red in color. Indeed, all the coloring matter of the blood, technically called *hœmatin,* is, in health, confined within the corpuscles, leaving the serum colorless and transparent, when they are separated from it.

There is one *white* blood corpuscle to about every three hundred red blood corpuscles, in health, but in various diseases, and especially in consumption, the white corpuscles are greatly increased, and the red ones decreased, for reasons to be given in the proper place. The white corpuscles are not disc-shaped, like the red, but globular in form, and a trifle larger than the red ones.

In every cubic inch of blood there are, upon what would appear to be as fair a calculation as can be made 63,488,000,000 blood corpuscles. These figures are obtained by squaring their average diameters, or 3,200ths of an inch, multiplying the product by their thickness, and dividing the final result by two, so as to give half the contents of the cubic inch of blood as corpuscles and half as serum, or about the proportions in which they naturally exist. By this the almost inconceivable number of corpuscles in a single cubic inch of blood will be seen. Then, when we remember that there are eighteen to twenty-four or more pounds of blood, or from nine to twelve quarts, according to size of person, in a healthy human system, the aggregate number of corpuscles that each person has in his blood reaches farther into infinity of numbers than many will care to go.

## FIBRIN.

The fibrin of the blood is the food of the fibrous tissues, included in which are all the serous membranes; that is, the pleura, pericardium, peritoneum, membranes of the brain, etc., and the serous membranes covering the ends of the bones in all the joints. All connective tissues, the cords and tendons, and the like, receive their nutrition also from fibrin. The two parts and a fraction of fibrin, in one thousand parts of blood, afford the principal nutrition to all the extended membranes named, the connective tissues, cords, tendons, and whatever other fibrous tissues, properly so-called, there are in the system. Why so little fibrin furnishes food to such numerous tissues is explained in the fact already given, that all changes in them take place so very slowly that very little is required daily to keep up their activity.

### FATTY MATTERS.

The fatty matters supply the material for the fatty tissues, and fatty deposits in the system, and all other natural demands of life for oily substances, as fuel for combustion to keep up the warmth of the body, lubricating material for various parts, etc., etc.

### SALTS.

The salts furnish the principal nutriment for the bones, and a little saline matter to all other tissues, while both these and the fatty matters are drawn upon for the nutrition of the brain and nervous system.

### EXTRACTIVE MATTERS.

The extractive matters, of which there are only five parts and a fraction in one thousand of blood, are regarded as mostly, if not wholly, effete matter, refuse, and therefore, of course, not nutritious.

Therefore, setting aside water, blood corpuscles and extractive matters, as non-nutritious, we have, as before stated, less than ten parts to the one thousand of blood, or one to the hundred, all told, of nutritious material, besides albumen, to build up and keep in continual repair the entire animal organism, thus showing that the sole dependence of the muscular system for food is, and must be, upon the seventy parts of albumen in one thousand parts of blood.

If such, then, is the importance of this constituent to animal life, can thinking men, whether in or out of the profession, contemplate such a profuse waste of it as will be shown to be sustained in consumption, without concern; even if, at first, they may not be able to see that it is the sole cause of all that is here claimed? It would certainly seem that men who do think, ought to consider and to consider deeply, in the interests of human health, such loss of one of the best elements of the blood, and the consequences to which it may lead.

## CHAPTER VI.

### THE MUCOUS MEMBRANES.

The mucous membranes constitute the inner wall, or lining, of all the internal cavities, which open upon the surface of the body; and all of them, without exception, waste albumen from the blood, not alone when disturbed by disease, but, also, when irritated by harsh medicines, or even by simple mechanical means, as we shall see.

These membranes extend into the deepest recesses, and through the most minute ramifications and subdivisions of those cavities, everywhere forming a perfect and continuous covering to protect the deeper tissues that lie beneath them, the same as the skin covers the exterior of the body, and protects the tissues that lie immediately underneath it. They are analogous to the skin, and continuous with it, the one running into, and, as it were, becoming the other, at the apertures of all the natural outlets from the system.

Wilson says: "Mucous membrane is analogous to the cutaneous covering of the exterior of the body, and resembles that tissue very closely in its structure." And in speaking of the skin he says: "It is continuous at the apertures of the internal cavities with the lining membrane of those cavities, the internal skin, or mucous membrane."

It is the same with all the great and small divisions of the cavities named; this internal skin, or mucous membrane, lines and covers them in every part. It extends through the nostrils down into the lungs, on through the most minute bronchial tubes, and out into the air-cells, completely lining all their inner walls everywhere; from the mouth it spreads down through every part of the alimentary canal, and out from the latter through the great gall duct, on and up into the most minute ramifications of the bile ducts throughout all parts of the liver; and it covers equally well every part of the genito-urinary cavities, even to the urinary tubes in the kidneys, which, like the smallest bronchial tubes and bile ducts, are much too small to be seen with the unassisted eye.

That this membrane is exceedingly delicate in the smallest bronchial tubes, air-cells, minute ducts of the liver, and urinary tubes of the kidneys, is true, but it is there nevertheless, covering perfectly every part, and exercising the same protective care over the tissues beneath, preventing the delicate filaments of nerves, and the vast net-work of capillary blood-vessels, which are found in the greatest profusion immediately in contact with its under surface, in those parts, from being in the least irritated or disturbed by the excretions or whatever else may naturally pass over its surface, just as effectually as does the thickest mucous membrane or the densest portion of the skin protect the delicate tissues that lie immediately beneath them.

There is another highly important, indeed, most indispensable, function exercised by the mucous membranes. The tissues beneath them are, of course, divided into the finest of fibers, which intertwine with and cross each other at every conceivable angle, leaving everywhere between them small, in fact, very minute interstitial spaces, lymph spaces as they are called, which extend continuously but tortuously down into, and through, all the deeper tissues. And these spaces are kept constantly filled with nutritious material—the food for those tissues, in a fluid or semi-fluid state—a large portion of which is albumen; this being constantly poured out into those spaces from the blood, through the walls of the capillary blood-vessels, and held there for the repair of all the cell structures of the various parts, as fast as they are worn out by the activity of the tissues.

The important function just alluded to as exercised by the mucous membranes, is this: that they, in a healthy state, form an impervious covering like the skin, to the interstitial or lymph spaces spoken of, between the fibers of the tissues beneath them; in other words, cap them over, and prevent the flow and waste of the fluid, albuminous, nutritious material, held therein, to repair the tissues, as described. The skin subserves exactly the same purpose, for the surface of the body, that the mucous membranes do in the internal cavities named. Life could not be maintained an hour but for this provision of nature.

If a large portion of the skin be removed, as in extensive burns and scalds, or of the mucous membrane abraded, as in disease, the albuminous, nutritious fluid in question flows out from the interstitial spaces, thus uncapped, in great quantity, and is entirely lost to nutrition; the consequences being as great, yes, often much greater, than the loss of an equal quantity of blood.

The entire removal of the mucous membrane from any one of the great tracts of it, namely, from the air-passages, alimentary canal, or urinary organs—even if this could be done without pain and without wounding any of the blood-vessels, so there would be no loss of blood—would cause death almost immediately, or, at the longest, in a few hours, simply from the waste of so large a quantity of albumen as would rapidly pour out at every point through the interstices of the tissues thus stripped of their natural covering, and its discharge and loss from the system.

It is the abrasion of a portion, and often of but a small portion at a time, of the mucous membrane of one or both kidneys, that kills in Bright's disease; and just in that way, namely, by uncapping the interstices between the fibers of the various tissues composing the kidneys, which thereby allows the albumen to flow out, and be washed away in the urine; more particular attention to which will be given after a few other points are settled.

The removal of a tract of skin equal in amount to either of the great mucous tracts, or even much less than that of some of these, from the waste of albumen, would kill in the same way, and just as quickly. Indeed, in extensive burns and scalds of the surface, where they are not deep, and the patient endures the first shock well, and survives it, death frequently occurs from the exhaustion consequent upon such profuse discharges as are sustained through the scalded surface, much of which is albumen. It is simply a question of the great loss of a most vital fluid, just as much as is the opening of a large blood-vessel and the bleeding of one to death.

The prevention of the outflowing of the fluid under consideration by the mucous membranes, in their healthy or natural state, appears to depend principally, if not wholly, upon the delicate superficial layer of those membranes, which covering corresponds exactly to the scarf skin of the surface of the body, except that it is everywhere more delicate than the latter; almost infinitely more so in the smallest bronchial tubes, air cells, tubes of the kidneys, etc.

And here another comparison of injuries done to the mucous membranes, with the effect of disturbing the outer integuments of the body, presents itself. If a blister is raised upon the skin, no matter by what process, whether with common mustard, the Spanish fly, simple friction, scalds or burns, it fills, as is so well known, with an almost transparent, slightly yellowish fluid. This fluid is the serum of the blood, the only material upon which all the soft tissues beneath the skin depend for their nourishment, and contains *albumen* in nearly the proportion that it is found in the blood; that is, there are 60 parts of it to the 1000 of the fluid of the blister, while in the blood the albumen is 70 parts to the 1000. And such blistering need only affect the scarf skin; in other words, it only requires to raise that from its basement membrane or next layer of the skin beneath it, to have the blister fill immediately with this fluid containing the albumen in the proportion named. This scarf skin, technically called the *epidermis* on the surface of the body, and *epithelium* wherever found internally, is constituted solely of enormous numbers of exceedingly fine, delicate scales, like the scales of a fish, except that they are infinitely smaller, overlapping each other in every direction, several layers in thickness, covering all the mucous membranes even to the most delicate of them, as effectually as it does the skin; and it is to this coating that the retention of the serum of the blood, in its proper place, after it passes through the walls of the capillaries into the tissues, is mostly, if not entirely due. Wherever it is raised or abraded from its basement membrane, whether externally or internally, there is no possibility of avoiding a loss of that fluid and all the albumen the amount so wasted contains, because of the uncovering of the vast numbers of the little openings or spaces between the fibers of the various tissues. As these spaces are kept constantly filled with the fluid in question, it *must* flow out when their cappings are removed, and will continue to flow until the abrasion is healed. And as there is *nothing else* that occupies those interstitial spaces but this albuminous fluid, or serum of the blood, it is an unavoidable and self-evident fact that there can be no discharge or secretion through and from a mucous membrane, or from the skin, in consequence of irritations and abrasions of either of these surfaces, without its containing albumen. Such explicitness, by recapitulations, is given on all these points, because so much that follows rests directly upon them for a foundation.

It should also be further explained, in this connection, that in raising a blister upon the skin, the fluid that fills it is almost always much more watery than is the secretion from a mucous membrane, when its epithelium is irritated or removed. Hence, in the latter case, much more albumen, that is, a much larger proportion of it to the whole discharge, is wasted, than is the case in an ordinary blister upon the skin.

Therefore, let it be hereafter remembered that an extensive and protracted abrasion of the skin or mucous membrane more or less rapidly wastes, according to the extent of the abraded surface, the most highly nutritious and necessary constituent of the blood, and is certain death to every victim to it unless the injured part is healed and that waste stopped. Vigorous health cannot be maintained a day with an abraded mucous membrane; they are utterly incompatible conditions, and, unless the defect is remedied, premature death is inevitable.

# CHAPTER VII.

## THE SOURCE OF ALBUMEN.

The only source of the albumen of our systems, whether found in the blood, in the interstices of our tissues, being wasted by diseased mucous membranes, or constituting the tissues themselves, is in the food that we eat. There is, of course, no other possible origin for it.

The white of an egg is, as before stated, the purest and most concentrated form of albumen known, and nothing is food for man that does not contain it, either pure or in considerable proportions, mingled with, or incorporated in, other wholsome ingredients. The digestive organs appear not to have the power to produce it out of other materials. They simply abstract it from the food eaten, and pass it into the blood-vessels, in the proper relative proportion to the other constituents of the blood; and never, in health, introduce more of it into the circulation than the ratio required, even though we should feed exclusively upon pure albumen.

Carpenter says: "There is no reason whatever to believe, that albuminous compounds can be generated within the animal body by the transformation of substances belonging to an entirely different type."

And the converse of all this is true, namely: if we ate only of pure albumen, the white of eggs, it is, in health, thoroughly digested, and only the exact relative proportion of it, to the other constituents, is permitted to go into the blood; if it did, a surfeit and clogging, and therefore disease, would result.

Again, all the constituents, for the healthy nutrition of every tissue of the animal body, may be drawn from pure albumen, as we see is the case with the chick in its shell. Its only sustenance, until it escapes from its embryonic prison, is albumen, and yet it comes out a perfectly developed creature, its brain and nervous system, its eyes and sight, ears and hearing, lungs, its digestive and other organs, all fully developed and in the highest state of activity for all immediate needs and purposes, while muscles, bones, feathers, beak, etc., are fully nourished, in perfect order and ready for use.

This is what albumen, as food, and its due proportion in the blood means; and this shows its vast importance to us in retaining life, health and activity. It is equally true that every tissue of the human body would be fully and properly nourished on an exclusive diet of albumen; though, as just stated, no more of it would, or probably could be introduced into the blood in health, than just what would be requisite in conjunction with the other constituents, to keep everything evenly balanced and moving harmoniously; while the material for all the other constituents would be drawn, as is the case with the chick, from that portion of the albumen taken as food, which is not passed into the blood as such, but is first fully digested and changed in its character as required.

The stomach and other digestive organs even in the most vigorous constitutions, might, and no doubt would, in a not very long time, become surfeited on an exclusively albuminous food, as they do when restricted too closely to one or two articles of diet, for too long a time; but health would be maintained, and life sustained much longer on pure albumen than they could be upon any other one article of food. And every organ and tissue would receive its due proportion, and the exact kind of nutriment needed for the performance of all its work, so long as the digestive organs retained their power to fully digest it.

Whenever the requisite amount of albumen for the uses of the system is selected from whatever kinds of food we may eat, and properly prepared by the digestive organs—if it needs other preparation than its mere selection—it is passed into the general circulation together with the proper quantity of water, salts, fatty matters, etc., held in solution in the water of the serum, as described, and is thus sent out through the arteries to the capillaries in every part of the system. And when it reaches the latter vessels it exudes, water and all, through their single delicate coat, as already explained, into the interstitial spaces between the capillaries, and is there held for the nutrition of every grade of tissues demanding it—for the constant reproduction of the cells composing those tissues, as fast as they are worn out, die, are absorbed, and required to be replaced.

It is the same with the albumen carried to the mucous membranes. Health requires it absolutely to be held in the interstices of the membranes, and for exclusively nutritious purposes. If it is wasted through irritation or abrasion thereof, all their tissues are robbed of so much of their necessary food, their functions are deranged, and activity impaired; but these are by no means the worst results from such waste, as we shall have ample proof.

When albumen is secreted and therefore wasted by a diseased mucous membrane, the supply of it in the blood is drawn upon to take the place in and among the tissues, of that which is wasted, as the tissue *must* have it for constant use, but a portion of this is in turn wasted; and so the drain goes on, constantly drawing upon and reducing its quantity in the general circulation, and leaving a constantly accumulating excess of the other constituents in the blood-vessels, such excess irritating, congesting or otherwise disturbing many, or all, organs and parts of the system, day after day, and month after month in chronic cases, until the irritated membrane is healed, or death, through more or less protracted, diversified and terrible sufferings, closes the scene. And this is what the waste of albumen, through irritated or abraded mucous membranes, means.

To sum up, then, what can not be exaggerated or given too great a prominence in the well-being of mankind by any amount of recapitulation, it is repeated that, the *only* source of the albumen wasted or lost to nutrition and the whole system, by diseased mucous membranes, is that portion of it which should be held in them to repair or renew their worn out tissues, and keep all their functions in a healthy and vigorous activity; the *only* source of the albumen which should be retained in those membranes, is the supply of it in the blood; and the *only* source of that in our blood, is in the food that we eat; which being prepared for the various uses of the system, by a most complicated digestive process, and, therefore, through great labor and expenditure of force, the fruits of such labor, either as to the constituents themselves that result from it, or that proportion among them which must be maintained to ensure health, can not be destroyed without greatly deranging, if not directly abstracting just that amount of force from the other involuntary, or from the voluntary forces of the system, or from both, in addition to all the other evils done. In short, the consequences of such drainage of one of the best elements of the blood, must act and react upon one another and the system, in many ways, to impair and finally destroy all its vital activities.

## CHAPTER VIII.

## THE BOUNTIFUL SUPPLY OF ALBUMEN TO THE MUCOUS MEMBRANES.

We are now brought to consider the bountiful supply of albumen furnished to the mucous membranes.

There is a greater profusion of capillary blood-vessels distributed in, or just beneath, all mucous membranes, and especially in the lungs, than in any other tissues of the whole animal body, excepting the glands, and one of the coats of the eye; and they are fully as profuse in the former as in these latter named parts.

Gray's Anatomy says: "The number of the capillaries and the size of the meshes, determine the degree of vascularity of a part. The closest network and the smallest interspaces are found in the lungs and in the choroid coat of the eye. In the liver and lung, the interspaces are smaller than the capillary vessels themselves. * * * As a general rule, the more active the function of an organ is, the closer is its capillary net, and the larger its supply of blood; the network being very narrow in all growing parts, in the glands, and in the mucous membranes."

Hence, it will be seen that, by the great vascularity of the mucous membranes, and the profusion of blood that must flow to them in consequence, albumen must be carried and exuded through the walls of their capillaries into the interstices of the tissues that compose them, as freely as to any, even to the most vascular of all the organs, and much more freely than it is to most parts of the body. The much greater activity of the mucous membranes, than of most other parts, both in regard to the nutrition carried on by their several tissues as well as immediately beneath them, and the highly important, yes, absolutely indispensable, functions they perform, necessarily demand the bountiful supply of albumen shown; and proves still further the serious consequences that must follow its waste, in crippling and deranging those functions, to say nothing of all else that is claimed. It is, therefore, to the three points, namely, the composition of the blood, its circulation, especially through the capillaries, and to the general work of nutrition, that we must constantly refer to prove and establish all that is asserted.

It will thus be seen that our subject is based solely upon the best known facts of both anatomy and physiology, and the fairest and plainest deductions from those facts. And it is believed that the most rigid, but just scrutiny of all the points to be presented, in proof of the claim, will only the more firmly establish the fact of the loss of albumen from the blood, through diseased mucous membranes, as being the true cause, not alone of that terrible scourge here especially under consideration, but of many of the other worst forms of both acute and chronic diseases; that the whole is founded upon the strictest of scientific principles, and fully as well, if not better proved than almost any other equally complicated subject throughout the whole realm of scientific research. There is a vast amount of proof in the aggregate, however, bearing upon the various points, that must be here excluded as it cannot be given within the limits assigned for this treatise; but what is deemed most essential will be presented.

## CHAPTER IX.

### PROOF OF THE WASTE OF ALBUMEN BY THE MUCOUS MEMBRANES.

All the mucous membranes, whether of the largest or smallest cavities, the most minute tubes of the lungs or kidneys, the air-cells of the lungs, etc., without exception, waste albumen from the blood when disturbed by actual disease, or by catarrhal or local congestions affecting them, when irritated by harsh medicines, or, indeed, by the simplest mechanical means. All kinds of irritation thereof alike produce this one result, whatever else may follow. Even in a perfectly healthy state, the mucous membranes secrete a very small amount of albumen. They are kept constantly moistened and in a pliable condition, by a secretion of mucus upon their free surfaces, which contains albumen, or is an albuminous compound.

Carpenter says of mucus: Its "chief organic constituent is a substance termed *mucin*, to which the characteristic properties of the secretion are due. This appears to be an *albuminous compound*, altered by the action of an alkali; for, as Dr. Babington has shown, any albuminous fluid may be made to present the peculiar viscidity of mucus by treating it with liquor potassæ."

But the quantity of it secreted in health is so slight—it being very difficult to obtain a sufficient quantity even to make a chemical test—that little or no actual waste is thereby sustained. At least nature, with all her proverbial economy and accuracy, must have made provision for what is used in that way.

Whenever the mucous membranes, on the contrary, are irritated by disease, by colds or by much milder means, the amount of mucus secreted becomes greatly increased, and contains more albumen, which is a direct loss or waste, as we have seen, of one of the most highly nutritious elements of the whole animal organism; it is, in consequence, a cause of great debility, and, if lost in any considerable quantity, through prolonged periods of time, is the source of the most serious chronic diseased conditions that afflict humanity; and when discharged in great quantity and rapidly, of the most violent acute diseases.

In speaking of the healthy and diseased secretions of mucous membranes, Professor C. G. Lehmann, in his most valuable of all works upon Physiological Chemistry, Vol. I, page 307, says:

"In the normal condition no albumen seems to pass into the *secretions*, as for instance the saliva, gastric juice, bile, mucus, etc., for although they do, indeed, exhibit traces of protein compounds, these latter differ from ordinary albumen. * * * This substance may, however, occur in any of these fluids in morbid conditions of the secreting organ; and Julius Vogel has especially shown that the mucous membranes may secrete *albumen* in addition to the ordinary mucous corpuscles when abnormally excited."

Again, on page 84, Vol. II, same work, under the head of *Mucus*, and after pointing out many obstacles in the way of obtaining a correct analysis of this secretion, he says:

"But even if the chemist should succeed in overcoming all these difficulties, his labors would be of no avail, in consequence of the impossibility of obtaining the fluid in a normal condition; for this juice is secreted in such *small* quantities on all the mucous membranes, as long as they continue in a normal state, that only the *merest traces* of it can be obtained. We also know how easily the mucous membranes may become diseased, and how much the mucus differs in these cases from the normal secretion. Daily experience shows how rapidly the number of the so-called mucous corpuscles increases with the *slightest* irritation of the mucous membrane; and we know from the researches of Julius Vogel, that an irritated mucous membrane secretes not only such corpuscles, but also an *albuminous*, coagulable matter, however much it may be disposed to form true transudations and exudations."

And again, on page 88, Vol. II, Lehmann further says:

"We have already referred to the observation of Julius Vogel, which admits so readily of confirmation, that the mucus secreted in *catarrhal* irritation of the mucous membrane, exhibits a varying quantity of *albumen*."

This is deemed sufficient proof of the general fact, that in catarrhal disease of *any* and *all* the mucous membranes, there is a secretion by them of albumen.

We will now proceed to the proof of its loss through special organs. Of these the lungs will be taken first, as they rank first in our investigations.

The following proof that great quantities of albumen must be discharged from the lungs by consumptives, is found in Copland's Medical Dictionary. This author, under the article in his work entitled *Expectoration*, on page 982, Vol. I, says:

"This word [expectoration], which signifies *the act of discharging any substance from the chest*, is now usually applied to *the matter so discharged*. The secretion which moistens the surface of the bronchi is a colorless and somewhat viscid fluid, consisting chiefly of the serum of the blood, and a modified, peculiar, or slightly glutinous form of albumen. It is so scanty in health as to be seldom or very rarely excreted; but in disease, its *quantity* varies very much, it being commonly—occasionally remarkably—increased, excepting at the outset of some inflammatory or exanthematous complaints, when it is diminished, and then only for a short time. Its *quality*, or appearance, is also extremely different, in different maladies, and even in different stages of the same malady, seated in, or implicating the respiratory or circulating organs; particularly as regards the quantity and condition of the animal matter or *albumen* which it contains."

Again, on page 983, same volume, this author further says:

"The *form* of the sputum [expectoration] is important, and is chiefly owing to the manner in which the morbid secretion is excreted, and to the quantity and modification of the albumen existing in it. When it is frothy, it may be inferred to have been expectorated with difficulty and with severe cough; it is then generally fluid, glairy, transparent, contains albumen and runs into one mass in the containing vessel, to the sides of which it adheres slightly, as in catarrh, the early stages of bronchitis, etc. When it is viscid, opaque, somewhat frothy and thick, it is usually brought up with much cough, contains much more albumen, adheres closely to that previously expectorated and to the sides of the vessel."

From this accurate description of the expectoration, who can fail to see that patients in consumption must daily throw off large quantities of albumen during the active stages of their disease? All must know that in the early stages of phthisis, the expectoration is generally more or less frothy, fluid, glairy and transparent; while, as the disease advances, it often, if not always, becomes viscid, opaque and thick, and "adheres closely to that previously expectorated, and to the sides of the vessel," and, of course, "contains much more albumen."

There is another fact which must not be overlooked in this connection, namely, that the abnormal discharges of albumen from the system in phthisis, commence with the very first catarrhal discharge from the mucous membrane of the nostrils or other organs, or parts of the system lined with this membrane, which show catarrhal secretions; such discharges generally *precede*, and always *usher in* consumption of the lungs, so that we have the loss of albumen going on, often long, and invariably some time before any tuberculous action is manifest; therefore, the proper relation of cause to effect, in point of time or occurrence, is maintained. All authorities upon the subject speak of an unusual sensitiveness of the mucous membranes of consumptives, to disease, or of a catarrhal irritability of these surfaces showing itself long before the proper tuberculous action sets in; and from the quotations which we have given from Lehmann, we see that the mucous or catarrhal secretions in all of these cases, must, without exception, contain albumen; that this must necessarily be a waste of this important constituent from the blood, we shall see further on.

Furthermore, we see how usually consumption follows and is apparently developed, or, at least has its origin in protracted irritation of organs which are possessed of a mucous membrane, other than the lungs. Large numbers of dyspeptics, for instance, die of consumption of the lungs, while it not uncommonly follows chronic disease of the bowels, or intestines, as chronic diarrhœa, chronic dysentery and the like; so it also frequently succeeds acute attacks of these organs, as a result of the exhausting action set up thereby, and it is well known to every accurate observer, how liable consumption is to follow female diseases, or be developed by them.

In all these instances we find that the waste of albumen is begun by other organs, and that with many it is sufficiently profuse and debilitating to exhaust the vitality to such an extent as to eventually permit of the whole disease being transferred to, or concentrated upon, the lungs, there to finish its work.

That these are not mere assertions, unsupported by proof, will be seen by the following from Lehmann, where in speaking of "Vomited Fluids," he says:

"*Albumen* occurs only in very small quantities when the fluid is acid, but in larger quantities when there is an alkaline reaction."

Besides, we know from what this author says of the amount of albumen thrown out by all mucous membranes when under irritation, that dyspeptics, and those suffering from chronic catarrh of the stomach, no less than others, must suffer a great loss of albumen in the quantities of mucus they so frequently throw off from that organ. Of the waste, or excretion, of albumen by the intestines, Lehman says, Vol. I, page 309:

"At the commencement of *dysentery*, the intestinal discharges consist chiefly of epithelium, and of a fluid poor in albumen, and mixed with a little true fecal matter; when the process assumes a well-marked croupous character, the evacuations consist chiefly of a mixture of blood and purulent matter, in which we can detect fibrinous exudations, blood corpuscles, cylindrical epithelium and pus-corpuscles. When the disease runs a less severe course, clots of glossy mucus from the follicles of the colon predominate; * * * * the fluid is extremely rich in albumen, being a true exudation of the blood-plasma."

Again he says:

"It is in dysentery that it [albumen] is secreted in the largest quantity from the intestine; the dejections in this disease are often so rich in albumen, that, on the addition of nitric acid, or, on boiling after neutralization with ammonia, the whole fluid solidifies. Coagulable albumen is also very often found in the puffy or fluid evacuations which sometimes occur in Bright's disease. It is constantly present in tolerably large quantities in the fluid stools in typhus."

As was said of the mucus vomited from the stomach, so must it be with all mucus discharges from the bowels; they waste the albumen of which they are almost wholly constituted, and this in addition to all that pours out in a nearly pure state, and is found by the ordinary tests.

Before leaving this part of our subject, there is another point claiming our attention. Lehmann says, as has been seen, that "at the *commencement* of dysentery, the intestinal discharges consist chiefly of epithelium"; while at another point he says: "*Epithelial structures* occur in the stools in all cases of diarrhœa; in typhus, cholera and dysentery, the diarrhœa causes a rapid desquamation of the epithelium, which for the most part hangs together in masses."

Here, then, we have the proof of what has already been stated, namely, that the mucous membranes are often stripped of their epithelium by disease, the same as the outer integument of the body is of its scarf-skin by scalds and burns, and it is after this is done, that albumen is most freely wasted. Such destruction, or stripping off of its epithelium by disease, is alike common to the mucous membrane of all organs possessing this lining.

Of the secretions by the mucous membrane of the female genital organs, the following is deemed sufficient for our purposes here: Copland, in his Medical Dictionary, Vol. II, page 821, gives a table of *one hundred and eleven* cases of leucorrhœa, for the purpose of showing the "character" of the discharges, etc.; and of this number no less than *eighty-four* are distinctly mentioned as having *albuminous* discharges, while eleven cases had an "aqueous discharge," and sixteen an "opaque discharge streaked." If, in these twenty-seven cases, mucus formed any part of the discharges, we know by what has preceded that they also wasted albumen from the system.

In regard to the discharge of albumen by the kidneys in albuminuria, or Bright's disease, the facts are too well known to require any special proof upon the subject; still, the following from Lehmann, Vol. I, page 308, may not be out of place at this point, in order to bring this branch of our subject (upon which so much rests), by comparison, directly before the mind of the reader. He says:

"The occurrence of albumen in the *urine* may be coincident with very different pathological conditions, although its presence was formerly made to constitute a special disease. * * * * In many acute and chronic diseases, unconnected with affections of the kidneys, albumen not unfrequently appears for a short time in the urine, as, for instance, in inflammation of the thoracic organs, acute articular rheumatism, intermittent fevers, typhus, measles, cholera, insufficiency of the valves or contraction of the orifices of the heart, also in chronic affections of the liver, and in pulmonary and peritoneal tuberculosis, especially towards the fatal termination of these diseases. * * * * It is, however, in affections of the kidneys, whether acute or chronic, that albumen appears most constantly in the urine. Bright's disease is a term of very wide significance, but if we limit it as much as possible, and merely include under the term a degeneration of the tissue of the kidney, more especially of the cortical substance, whether of a fatty or other character, we may regard the presence of albumen in the urine as a constant symptom of this disease. But in transitory renal catarrh, such, for instance, as occurs in erysipelas nearly as frequently as after scarlatina, albumen, together with the well-known epithelial cylinders of Bellini's ducts, is found as constantly in the urine as in inflammatory affections of the kidneys, where it is associated with the fibrinous plugs from the same ducts, as in true Bright's disease."

And again he says, on the same page:

"It is worthy of notice that a little albumen, together with mucus corpuscles, is found in uncomplicated severe catarrhs of the mucous membrane of the bladder." And further: "The observations already made in reference to the occurrence of albumen in the urine apply almost equally to its appearance in the *solid excrements.* Albumen is always found in the excrements in diarrhœa depending upon intestinal catarrh, and in diseases complicated with this affection; * * * * hence, we find that, not only in dysentery and cholera, in which so much stress has been laid on the discharge of albumen, but, also, sometimes in Bright's disease, albumen, together with entire patches of cylindrical epithelium, (in some cases the entire thimble-like coverings of the intestinal villi,) is discharged in masses by the rectum."

To show that the discharge, or waste, of albumen from the system, in all the instances given, is abnormal and of very serious import, the following, from the same author, Vol. I, page 308, is quoted:

"In the physiological or normal condition, no albumen is contained in the *excretions*, and its appearance indicates either disease of the excreting organ, or a complete alteration in the composition of the blood."

It will have been seen that the abnormal discharge of albumen has been constantly spoken of as being lost from the blood. That this is the case, is beyond question, as may be seen from the following. Carpenter says, in his Physiology:

"The quantity of *albumen* in the blood seems to vary less than that of most of its constituents. [This of course refers to its quantity in healthy blood.] The proportion which it bears to the water of the serum, is, of course, elevated by anything which diminishes the latter; and thus we find it high in cholera after profuse discharges of fluid from the intestinal canal, and in other cases in which there has been an unusual drain upon the liquid part of the blood, provided that albumen does not pass off with it, as sometimes happens. Where some special cause is in operation which favors the escape of the albumen from the circulating current (as happens in various forms of albuminuria, but especially in the advanced stage of Bright's disease) the amount of albumen in the serum is reduced below the normal standard. * * * According to Andral the diminution in the amount of albumen contained in the serum, is exactly proproportional to the quantity contained in the urine."

Watson, in speaking upon the same subject, under the head of Bright's disease, says:

"Now, Dr. Christison has made out the very interesting fact, that there is a definite inverse ratio between the coagulability of the urine and the density of the serum. The more albumen there is in the former of these fluids, the less is there in the latter, and the lower is its specific gravity. So that the deficiencies of the one fluid balance the superfluities of the other."

If the albumen discharged in the urine, in consequence of disease of the kidneys, in Bright's disease, is a loss or abstraction of just that amount of this important constituent of the blood from the blood-vessels, of course, the abnormal secretion and discharge of albumen by the mucous membrane of all the other organs possessing this lining, must be a like waste from the blood. Indeed, this must be an absolutely fixed fact in nature, for there is no other possible source from which the albumen can be drawn, in any such case, but from the blood. But if proof of this should be deemed necessary, we have it in the following, in regard to Tuberculosis. Wood, in the article in his Practice, upon Tuberculosis, which he uses synonymously with scrofula, on page 114, Vol. I, says:

"From the experiments of M. Dubois, of Amiens, it would appear that the blood in scrofulous cachexia has a smaller proportion of coagulable matter in relation to the serum, and that the serum itself is of less specific gravity than in health. * * The blood is, therefore, watery and impoverished, and incapable of supplying the nutritive function sufficiently."

Now, when it is remembered that albumen is the *only* coagulable matter in the blood—fibrin being properly a fibrillating material, and, of course, not included in this remark of the author—we see that a "smaller proportion of coagulable matter" means a smaller proportion of albumen. Besides, our author says the serum is of less specific gravity than in health; but no diseased action of which we have any knowledge, will reduce the specific gravity of the serum below the healthy standard, excepting the loss of albumen. And, in addition, we know that the blood can not become "watery and impoverished" through diseased action, except by a loss of some portion of its albumen. The ingestion of too much watery food, or of too much fluids, stale vegetables and poor diet generally, would produce a similar result, without disease having had any agency, as a cause, in impoverishing the blood, but this would be only temporary, unless such matters were habitually used in place of proper food. In such cases albumen is deficient in the blood because deficient in the food.

But what can be the necessity for giving quotations from even the best authors, or presenting an argument to prove that it is albumen in the form of mucus which is secreted by irritated mucous membranes, or pure albumen that escapes through those membranes, when abraded of their epithelium; or what the need to prove that such waste is a loss of it from the blood? All that should be required is a statement of the bare fact that there is absolutely nothing but the serum of the blood, consisting of *four hundred and three* parts of water, to *seventy* parts of albumen, *six* parts of salts, *two and two-tenths* parts of fibrin, and *one and three-tenths* parts of fatty matters, that occupies the interstitial spaces described beneath the mucous membranes; consequently there is nothing else which can, by possibility, be secreted by, or pour through them, so long as the blood-vessels beneath remain broken, so that actual hemorrhage can not occur. And the discharges through an irritated, or even through an abraded mucous membrane, being almost always much thicker and more tenacious than the watery contents of a blister upon the skin, (which consists of the serum of the blood with all its constituents in about their natural proportion as above given,) it must be seen that such discharges can not be anything else but albumen, with often, no doubt, a slight admixture of salts, fibrin and fatty matters. But the exceedingly small quantity of the last three, in comparison with albumen and water, make it certain that they can form but a very small fraction of such discharges, and these are so thick they can not contain but a small portion of water; so, I repeat, that the mucus secretions can be nothing but albumen.

And that this is drawn from the blood and lost to it, is just as absolutely certain, as is the character of the discharge, there being nothing else in the blood that corresponds to it in the least particular but albumen, which does correspond in every respect; while, as we have also seen, there is no other possible source from which this can primarily be drawn, except from the blood-vessels.

It is the same with the fluid that fills the blister upon the skin; there is no other source from which it can be drawn, except from the blood-vessels, but here it is so much of the serum of the blood with its full proportion of water that is secreted and not all albumen, as is so commonly the fact with the secretion or waste by the mucous membranes; thus, in the latter case, making the waste of albumen much greater from the same amount of discharge, than in the case of scalds and burns.

## CHAPTER X.

## WHY THE MUCOUS MEMBRANES ARE SO PRONE TO DISEASE.

If it should be asked why the mucous membranes are so prone to obstinate and protracted chronic disease, the answer would not seem to be difficult, for,

First. Whatever else the consumptive may have inherited of actual disease, or a tendency to it, he inherits a characteristic weakness of the mucous membranes, or a great liability to catarrhal irritations arising therein upon slight provocations, as from moderate as well as from severe colds, and the like, the effects of which may continue through long periods of time, and in spite of many remedies.

Secondly. When chronic skin diseases are treated locally, and thereby removed from the surface, no other result follows, except that they are driven inwardly to locate upon the mucous membranes, where they go on into immediate chronic catarrhal disease; or if the vitality be strong, they are then forced into a more or less dormant condition, there to lie as a hidden enemy, to spring into activity as soon as from any cause the strength of his life forces are reduced so they can no longer hold this secret and powerful enemy in subjection. No fact in the whole range of disease is better known than that if the eruption of small-pox, scarlet fever, measles, etc., is suppressed, if not speedily restored to the skin, it kills the patient in every instance; and when such eruption is suppressed, it is always translated primarily to some one or more of the mucous membranes, and from that surface carries on its work of death. Wood, in speaking of the "anatomical characters," observed in the autopsies of those dying of small-pox, says: "The only characteristic alterations are those upon the skin and mucous surfaces." And every observing physician knows the same to be true of the premonitory irritations, no less than of the resulting conditions of the mucous surfaces from measles or scarlet fever, in cases of death. The reason for this is that the mucous membranes correspond more closely in structure to the skin than to other tissues, and the disease, when suppressed, seizes upon the nearest similar internal surface.

Thirdly. Notwithstanding the fact is universally known that death is inevitable under every suppression of the acute eruptive diseases named, unless very soon restored to the surface, physicians of other schools appear never to hesitate to suppress by external treatment every chronic skin disease they are called upon to treat, apparently not knowing the terrible wrong they are thereby inflicting upon their patients. Indeed, notwithstanding the overwhelming proof and warnings given by Hahnemann, of the frightful results of suppressing chronic skin eruptions, thereby producing in the various cases every form of internal chronic disease, from insanity and idiocy to consumption and cancer, still the great majority of the physicians of our own school, of late years, seem to hesitate as little as do those of other schools in imitating the bad example. It is deliberately preparing the ruin, through untold suffering, of hundreds and thousands of those who appeal to them for help in their troubles.

Can any physician, who thinks for himself, suppose for an instant, that nature is so constituted as to allow the taking of the life of every patient who is unfortunate enough to have an acute eruptive disease suppressed—this disease being of only a few days' or weeks' duration—while she will permit the suppression, more or less suddenly, without harm coming of it, of a chronic skin disease of years' duration? Consider a fair example. A great many children inherit the taint of scrofula or tuberculosis, from scrofulous or tuberculous parents; this taint frequently develops in such children during infancy, childhood or youth, into some of the many forms of eczema, psoriasis, herpes, or some other equally obstinate chronic cutaneous disease; and when it does come to the surface in any form of chronic skin eruption, can any one think that this taint, which extends into a preceding generation for its starting point—often, indeed, having its origin several generations previously—is cured and eradicated from the systems of such victims, by a few days or weeks of external applications, when a similar treatment which would suppress any acute cutaneous eruption, would speedily take life? No, it is preposterous to suppose that the acute eruption will show such violent and fatal results when suppressed, and the chronic no such action whatever.

But, says the critical reader, chronic cutaneous diseases are often speedily removed from the skin by external treatment and no harm comes of it for months, and often not for years. Very true of some such cases, while it is equally true that in some other like cases the results are nearly as speedy and terrible as when the eruption of small-pox, measles or scarlet fever, is suppressed. And why this difference in the time of development of the disease internally, in the two classes of eruptions when suppressed? We shall now see.

Chronic cutaneous diseases are generally so much slower in all their actions that, when suppressed, they give time for the system to accommodate itself to their internal presence and irritations, and the gradual changes wrought by them, hence cannot generally kill so quickly as do the acute skin eruptions when suppressed. But the time gained is often at the expense of greatly prolonged suffering, and in the one case as in the other, death at the end. Still, there are numerous cases on record where the suppression of a chronic skin disease has taken life as quickly as does the translation internally of an acute eruption. In this connection does anybody believe that a part of these chronic cases can show such terrible consequences, and others go on through life and never show the least bad results? And this brings up another point for explanation.

There are some cases where the patient possesses naturally a strong constitution, or a great tenacity of life, who may have a chronic skin disease suppressed, and not for years, if ever, show the slightest internal result therefrom. This, however, is not found as commonly as is supposed, when proper vigilance is exercised in the examination of such cases; but when it does occur, what is the explanation? Simply this: the strong vitality of such subjects forces the suppressed disease into a *dormant* state in their systems, so that it can show but little, if any, activity for years, and possibly not for a life-time. In some, too, the disease is forced into partial dormancy, and does not show bad results in a long time; but when it does become aroused by great exposures, excesses, advancing years, or whatever exhausts the vitality so that it can no longer hold the disease dormant, then it locates upon some one of the mucous membranes, irritates and abrades that, wastes albumen, and produces some of the consequences arising legitimately therefrom.

## CHAPTER XI.

### THE CONSEQUENCES OF LOSING ALBUMEN.

The first thing to consider under this head, is the waste of the large amount of the most nutritious element of the blood; and, secondly, the fact that such waste of one important constituent must necessarily throw the whole into a disproportion that was not intended, and against which there is and can be no remedy except to arrest the progress of the waste, and thus remove the cause of all that follows. If albumen, as has been shown, serves such highly important purposes in the system, its daily loss in any considerable amount, month after month, must lead to the most serious consequences, no matter from what organ it is discharged.

But it is to Bright's disease of the kidneys, that we must turn for a clear understanding of this whole subject, and for the most indisputable proof of the fatal consequences that must always follow the continued and protracted waste of albumen from the system by diseased action. As is so well known to the profession, and to many intelligent laymen, Bright's disease consists in the discharge of albumen from the kidneys; and the consequences of such waste, in the chronic form of the disease, are among the most terrible, and also among the most absolutely hopeless of any affection that occurs in the whole realm of disease. It almost invariably proves fatal to every victim. And we here repeat, that the hopelessness of cure, the almost universally fatal results in this disease, are primarily due entirely to the waste of albumen as described, from the blood and tissues that need it, this being the sole original cause of all that follows.

Can it, then, be reasonably supposed that if the waste of this constituent through the kidneys, be so invariably fatal, the same element can be lost from the blood in still greater quantity through those more vital organs, the lungs, and not be equally serious, equally fatal? It is absurd to think otherwise. It is worse than folly, it is criminal to hesitate a moment in deciding a question of such momentous consequences to mankind. It is a matter that admits of absolutely no question, when once fully and clearly understood. Why, even its profuse waste through that comparatively non-vital part, the skin, in extensive but superficial scalds, or burns, where the patient might recover but for such loss, is a well known and well established fact.

Of course there are, and necessarily must be, marked differences in many of the symptoms, and especially in the secondary conditions which arise, when albumen is lost through different organs. These differences must correspond, more or less, to the nature and functions of the organs through which albumen is lost; but in gravity of results there can not be marked exceptions for the same amount wasted through whatever organ or part. At least the exceptions, if any, are, that the less vital a part or organ, the less serious the results for the quantity lost, or, in other words, the longer the system might be able to withstand the drain, other things being equal, the more delayed would be the serious or necessarily fatal complications; while the more vital the part or organ, the more certainly and speedily fatal the result. It is under this idea that when albumen is lost through the lungs and kidneys, *there is no such thing as life being preserved,* UNLESS THAT WASTE IS STOPPED.

Turning now to special diseased conditions, or the results arising from the loss of albumen as their cause, we find that as it furnishes almost the sole nutrition for the muscular system, its continued daily loss in appreciable amount, must necessarily rob the muscles of a portion of their nourishment, and they must manifest the fact in a marked manner. And this is exactly what does transpire in a way not to be misunderstood, as will be seen by the following: *Emaciation* of the whole muscular system is one of the most reliable characteristics of consumption. It is, indeed, so characteristic that in the early stage of the disease, in many cases it affords a more certain diagnostic sign of the threatening of that affection, than any other indication. Sometimes, in fact, the physician would be unable to determine the true nature of the coming lesion, until the disease had made considerable progress, were it not for the characteristic emaciation. And, it is repeated, the waste of the nutrition of the muscles, in other words, of albumen, is the cause of the emaciation, and often before there has been any febrile disturbance, or other suffering, to account for such a result, and when the appetite and digestion are good, or at least fair.

Emaciation in Bright's disease, it should be explained, is not often as extreme as in consumption, although the cause of both is the waste of the same element of the blood, for the reason that in the former there is not usually so great a loss of albumen as in the latter disease, and for the further reason that in Bright's disease the blood is left more watery than in consumption, as will soon be shown, and because of which such patients must earlier become dropsical or bloated, thus covering or preventing in part the appearance of emaciation which is so prominent a characteristic of consumption.

To present the further specific effects of the loss of albumen in their clearest scientific light, and show how it is that this causes tubercles, and therefore consumption, it becomes necessary to recur to the composition of the blood, the table of which is here re-inserted, that it may be directly before the mind, without the necessity of referring to it:

1000 parts of healthy blood contain, of

| | | |
|---|---|---|
| Albumen, . . . . | 70. | parts. |
| Water, . . . . . | 403. | " |
| Blood Corpuscles, . . | 512. | " |
| Fibrin, . . . . . | 2.2 | " |
| Fatty Matters, . . . | 1.3 | " |
| Salts, . . . . . | 6.03 | " |
| Extractive Matters, . . | 5.47 | " |

The economy everywhere displayed by nature, in the use of her forces and products is proverbial, and there can not be less care exercised in the delicate machinery of life and health, than in grosser things; hence it must be seen that, if she decreed that healthy blood must possess the constituents named, and in the proportions given, it was because they were required for use in just those proportions, to build up the human system and maintain it in health. It is self-evident, where such a complicated system of organs as those of digestion is created, and all compelled to work in harmony with each other through their numerous functions and laws, that the product of such work, so carefully supervised at every step, can not be used in any other ratio of its several parts than was designed, and maintain health. There must be almost a mathematical certainty about this.

Under the head of "Nutrition and Growth," Kirke and Paget say:

"In order that the process of nutrition may be perfectly accomplished certain conditions are necessary. Of these the most important are:

1st. A *right state* and *composition* of the blood, from which the materials for nutrition are derived.

2d. A regular and not far distant supply of such blood.

3d. A certain influence of the nervous system.

4th. A natural state of the part to be nourished."

And further on they say:

"How precise must that adaptation of the blood to the whole body be, by which in health it is always capable of maintaining not only the whole number of different organs and tissues, but all the different parts of every one of them."

If, then, such great care is necessary in the production of the blood in the first place, and such a perfect adaptation to its purposes, in its "state and composition," anything that deranges such composition, or destroys the ratio among its constituents, as does the loss of albumen, will be a cause of most serious disturbance to the animal economy, and unless the evil is remedied, and the disease *cured*, must work disease and ultimately death to every individual suffering from it. There is absolutely no other way for escape. The mere palliation of, or temporizing with, such an enemy to life, only serves to hasten the fatal issue.

In accordance, then, with the proportion among the several constituents of the blood given in the table, the loss of every ounce of albumen therefrom, must necessarily leave a *relative* excess in the blood-vessels of

| | | |
|---|---|---|
| Water, | 5¾ | ounces. |
| Blood Corpuscles, | 7 | " |
| Fibrin, | 15 | grains. |
| Fatty Matters, | 9 | " |
| Salts, | 41 | " |
| Extractive Matters, | 37 | " |

By this it will be seen to what extent, and the exact ratio in which the proportion of the blood constituents is destroyed, by a given loss of albumen. Every ounce of it abnormally discharged through any mucous membrane, in addition to wasting that much of nutritious material, actually destroys nearly one pound (fifteen ounces) of blood, for all purposes of healthy nutrition. This furnishes a still more prominent reason than before given for the great derangement to nutrition which is always manifested in consumption. Under the *natural* appetite of *health*, that is, if a consumptive should eat no more than the system demands in perfect health, the emaciation in many cases would progress more rapidly than it does; but a compensating balance, or preservative process, is established in many, by exciting a greater appetite than that of health, till the powers of digestion are more of less exhausted, so that the individual may be preserved longer, often much longer than he could be without it. This is, of course, not the case with all, but it is with many, and, other things being equal, such patients live longer than those similarly diseased but whose appetites are not thus abnormally excited.

## CHAPTER XII.

### PROOF OF THE OTHER CONSTITUENTS BEING LEFT IN EXCESS IN THE VESSELS WHEN ALBUMEN IS LOST.

It must not be expected that the other constituents of the blood can be shown to be in excess in the blood-vessels in their exact representative proportions to a given amount of albumen that is lost. This cannot and could not by the utmost scrutiny be done, for the simple and sufficient reason that such excess is not all retained in the vessels, but is excreted, in some instances, no doubt, nearly as fast as albumen is wasted, while in all, or nearly all, there is a daily expulsion of as much of the excess as the vital powers of the individual system can thus dispose of. The very necessities of life demand this. No person could live a week under the free loss of albumen, were not a greater or less portion of the excess of other constituents daily expelled.

As before asserted, this excess is "found depositing itself, or being deposited, in living tissues, causing diseases that correspond both to the nature of the constituent so disposed of, and the part in which deposited; or, it is expelled from the system entire through every avenue of escape that nature can command, thereby causing many characteristic diseases. There are necessarily great differences in these respects with different persons, as is the case in other diseased conditions. While one would have greater power to excrete the excess of one or two of the constituents of the blood, another would get rid of some of the others more easily, and so on. One would be able to expel daily so much of the excess of water, for instance, through the kidneys, or, by ordinary perspiration, or by night sweats, that dropsy, from its effusion into the tissues would be delayed much longer, than with another having less power over that element; or it would not appear at all where that power is very active. Some will throw off more of the excess of blood corpuscles by means of hæmorrhages; while another class have more power to decolorize and dissolve the corpuscles and then excrete the debris through the bowels, thus in both of these classes, delaying the development or progress of tubercles longer than would be the case with others. Often, if not generally, those who have the least power to excrete the excess of water from the blood-vessels, have a much greater portion of the excess of the corpuscles dissolved by the greatly diluted serum, than do those who expel the water readily. This is one of the reasons, at least, as we shall see, why tubercles are seldom prominently developed in those suffering from Bright's disease; their blood being so much more watery usually, than with other losses of albumen, in consequence of the kidneys being so obstructed that they cannot excrete what they should, of even the natural refuse water, to say nothing of that left in excess, and the blood, thereby, becoming so very watery that its corpuscles are dissolved and thrown off, so that few or none of them are left to be changed to tuberculous corpuscles. Still, tubercles are not unknown in connection with that disease.

It is the same with the fibrin, fatty matters, and the salts. One person will excrete more of the surplus of one of these elements than another, and we find the results corresponding thereto. Some consumptives have "fatty livers," and some do not, and thus it is that these diseases show within certain limits every conceivable difference and variety.

Again, in discussing and presenting the proof of an excess of the various constituents, it must be understood that it is a *relative* excess of them, as compared with the quantity of albumen left in the vessels, that is referred to, not an absolute excess, beyond what should be in health. The loss of albumen could not, of course, increase the quantity of the others, excepting *relatively*, as compared with the reduced amount of the former left in the circulation, and this is the sense in which the terms "excess," "surplus," and "increase" are used in these pages.

*Everybody knows that the blood of all consumptives is too watery.*

That the blood of consumptives contains an excess of, or too much, water, throughout the whole course of their disease, from its very first or incipient manifestation, all the way through to the close of life; and that, too, however heartily they may eat, or how well they may digest their food, must be too well known to all to really require much if any proof upon the subject. The various expressions, "poor," "thin," "watery," or the like, as applied to their blood, have probably been used almost universally since the days of Hippocrates, certainly much longer than the comparatively brief recollection of any now living. Therefore, this part of our subject would seem to be so well understood that proofs would appear superfluous; nevertheless, it may be as well that some be given.

We have already seen that Wood says the serum of the blood in all tuberculous diseases "is of less specific gravity than in health"; and that: "The blood is therefore watery and impoverished, and incapable of supplying the nutritive function sufficiently." There is no other diseased action known which renders the blood so watery except the loss of albumen.

Copland, in his Medical Dictionary, Vol. III, page 1210, says of the blood in "Tubercular Consumption":

"At an early period, or even before the disease has fully declared itself, the blood is thinner or poorer than in health."

But what is more to the purpose, he gives on the same page a table in which are condensed the results of twenty-two analyses by Andral and Gavaret, wherein the average proportion of water in the blood of the cases of consumption they examined is given at 809.7 to the 1000; the proportion in healthy blood being given by Kirke and Paget at 784., and by other authors at 783., to the 1000. Of course, it must be understood that in all these instances the water naturally belonging to, or in, the corpuscles, is included in the figures given with the water of the serum proper, as heretofore stated, all these analyses of both the healthy and diseased blood being made after the same method, and not by first separating the corpuscles with their natural supply of water, and leaving the water of healthy serum at 403. as in the tables presented herein. Therefore, taking the analyses given by Andral and Gavaret as that of the consumptive's blood generally, as correct, we have the proof of the great excess of water in his blood, and know that the consequences must be very serious.

In Bright's disease, for reasons hereafter given, the difference is still greater, if we compare the specific gravity of the blood in it, with that in health, as will be seen by the following from Watson, page 882:

"The average specific gravity of healthy serum is 1030; but in Bright's disease it descends to 1024, 1020, and even to 1013."

This is in comparison with pure water at 1000. The specific gravity of the serum in health being almost wholly due to the albumen it contains, the excess of water in the blood in this disease as compared to the albumen remaining, is as one-fifth to less than one-third of the whole amount in healthy serum, or from 80 to nearly 150 parts of it in excess, according to the figures given by Watson.

Many other authors give about the same proportion as Watson, hence on this point it seems unnecessary to quote them; and what is here given would seem to be all the proof that can be reasonably required of the excess of water that is left in the blood by a loss of albumen in consumption and Bright's disease; while it can not be fairly questioned that a corresponding excess of it must be left in all cases where albumen is lost through other mucous membranes than those of the lungs and kidneys.

The red blood corpuscles being organized and colored bodies, or cells, that are readily decolorized but not easily broken down, or dissolved, all, or nearly all, the general as well as the specific facts in connection with their being left in excess in the blood-vessels, will be entirely different from that of any and all other constituents.

For instance, they must find their outlet from the system in one of three ways, namely: first, by congesting in and rupturing the small, or smallest, blood-vessels, and flowing off in hæmorrhages, as red corpuscles and found as such; or, secondly, they are *decolorized* by circulating in a blood that is too watery, and are then deposited, not, however, as red corpuscles, but as pus or tuberculous corpuscles, as will be shown; or, thirdly, they are both decolorized and entirely dissolved, as generally happens to them in a very watery blood, when they are excreted from the system, not as corpuscles of any kind, but as a substance without organization and in solution in the excess of water that has destroyed them; whereas all the other constituents, without exception, are found in the vessels unchanged in their nature, or nearly so, by any condition of disease, and they are promptly excreted *through* the walls of the capillaries, without rupturing them, into living tissues, or for entire expulsion from the system, when they are also found little if at all changed in their nature.

Therefore the latter, especially the excess of them, is always easily traced, and medical literature abounds in the proof that they are to be found in excess in all those diseases, wherein it has been proved that albumen is lost.

But this is not so easily done when the excess of a constituent has to be entirely changed in its character in order to rid the circulation of it, as is so often the case with the red corpuscles. Though proof is not entirely wanting that they are found in excess in the vessels in the early stages of some cases where albumen is lost, as will be seen by the following from Lehmann, Vol. II, page 605:

"It will be long before we can hope to establish any fixed relations of comparison between definite physiological processes and the increase or diminution of the number of blood corpuscles in morbid blood. We constantly find the blood-cells augmented in plethora, in the earlier stages of heart disease, in spinal irritation (Popp), and in cholera (C. Schmidt)."

"* * * * * During the first eight or ten days of typhus, the blood corpuscles are always increased; but subsequently to that period, at least until the twenty-first day, their number is considerably diminished."

"* * * * * In *spinal irritation*, Popp found 120.5 per M. as the lowest number, and 140.5 per M. as the maximum (his mean normal number being 120); in *plethora* he found the corpuscles much less increased than in spinal irritation."

In typhus, as we have seen, there is a large amount of albumen lost through the mucous membrane of the intestines, to account for the increase of the red corpuscles, "during the first eight or ten days," while their subsequent decrease is just as satisfactorily accounted for on the ground that the blood is made so watery in eight or ten days' profuse loss of albumen, that they cannot longer resist its effects, and large numbers of them are decolorized, and disappear as colored corpuscles, but are found as colorless ones.

Both plethora and heart-disease are very commonly preceded and attended by quite free and often profuse mucus discharges from some of the organs lined with a mucous membrane, by which albumen is more or less freely wasted, and which would account for the increase of the red corpuscles in those diseases. And nothing is a more common result in Bright's disease than some form of disease of the heart, while one author asserts that in plethora, or at least that corpulent people are frequently found to discharge albumen from the kidneys.

And, finally, in regard to *spinal irritation*, not one of the many disturbances or actual diseased conditions of other organs than the lungs, that precede consumption, is more common than irritability of the spine, or spinal nerves. And this always occurs before the disease becomes concentrated in the lungs, that is while the red corpuscles are found in excess in the vessels, and before the blood becomes so watery as to decolorize them to a great extent and change them into tuberculous corpuscles.

The increase of blood corpucles in cholera, which, like all the other instances, is only a relative increase compared to the other constituents remaining in the vessels, is not due to a loss of albumen in this disease, but the profuse discharges of water, albumen as well as all the other constituents besides water being augmented because of its loss. This is another proof of the proper proportion among the constituents of the blood being always destroyed when a portion of any one of them is lost. And incidentally in this connection, the fact may as well be mentioned that the common occurrence of dysentery, in a week or ten days after cholera, is, no doubt, to expel the excess of corpuscles left in the vessels by its watery discharges. Congestions of the liver which are quite common after it, and of other organs, are also, no doubt, due to the same fact.

Of an excess, and often of a great excess, of *colorless* corpuscles in the blood of consumptives, and other subjects who lose albumen, and that, too, from a decolorization of the red ones, there is, happily, no such want of proof, as of the increase of the latter, for it abounds in profusion in the works of many authors. And such of their testimony as may be needed can be no more appropriately introduced than by giving the following from Lehmann, Vol. II, page 611, which proves what has been claimed in the preceding pages, of the readiness with which the red corpuscles are decolorized. He says:

"As the red corpuscles are rendered *invisible* by the addition of water to the blood, we may in this manner form an approximate estimate of the quantity of the colorless corpuscles."

And again, on page 614, same Vol., after speaking of other points in regard to the water of the blood, he says:

"This leads us to revert to the relation which the amount of water in the serum and in the blood generally bears to the number of blood corpuscles. It is a striking phenomenon, that *ordinarily* blood in which the serum contains much water, presents few corpuscles; we observe this * * * * especially in morbid blood."

And that he alludes in this to the red corpuscles is seen by the following, which closes the same paragragh:

"The conditions which give rise to a diminution of the solid constituents of the serum (albumen and salts), generally, at the same time, also occasion a diminution of the colored blood-cells."

Again he says, on page 615:

"Even in the beginning of most diseases, especially those of an acute character, we find the blood more watery than usual, except during the first ten days of typhus [just the time that he says the red corpuscles are found increased in this disease], during cholera, and scarlatina, and measles, in their first stages. * * * * Hence, it must be concluded that immediately after the primary invasion of certain diseases, the blood corpuscles are destroyed in large numbers, * * * * and that their products of metamorphosis are retained for some time in the serum."

If the red corpuscles are decolorized or wholly destroyed in consequence of, or by, a too watery serum in one class of diseases, they must be equally so by a too watery serum in any other disease, and that this is so in consumption is proved by the following from Copland's Medical Dictionary, Vol. III, page 310, where, in speaking of the blood in consumption, he says:

"At an early period, or even before the disease has fully declared itself, the blood is thinner or poorer than in health; the colorless globules are more or less abundant, and the red globules less numerous."

And in another paragraph, on the same page, he further says:

"Andral and Gavaret state that, in all periods of this disease, excepting the last, the fibrin seems on the increase, and the red corpuscles are on the decrease, progressively throughout"; the decrease of the red corpuscles being attended by the increase in the colorless ones, as seen by the preceding quotation.

In his article on Scrofula and Tubercles, same Vol., page 817, this author also says:

"Under the microscope, some of the corpuscles appear devoid of color at the edges only, some entirely colorless."

This shows the commencement, as well as the completion of the decolorizing process, and proves that it must be a progressive work with each corpuscle until completed.

Carpenter says, page 188:

"A marked increase in the proportion of the *colorless* corpuscles * * * * shows itself, especially in the blood of cachectic subjects, in whom (particularly those of a tuberculous diathesis) it seems to take place independently of inflammation."

This is thought to be all the proof that can be required of the relative increase of the red corpuscles in all cases where albumen is lost, and of the prompt decolorization of them, by a two watery serum, which causes them to decrease, so early and so rapidly, in such diseases, and become changed thereby into the colorless corpuscles, thus accounting for the great increase in the latter; but were more testimony required on these points it could be given in still greater amount from the same and from other authors.

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With the fibrin there are no such difficulties as with the corpuscles, in the way of finding it in excess in the blood, or tracing it after being expelled from the vessels whether into living tissues or into the excretions, when left in excess in the serum by a loss of albumen, for it is seldom or never but little if at all changed under any of these circumstances.

We have already seen in the quotation from Copland under the head of Excess of Corpuscles, that he says on the authority of Andral and Gavaret that: "the fibrin seems on the increase * * * * progressively throughout," in the blood of those suffering from consumption. He further says in the same paragraph:

"If the tubercles be in a crude, unsoftened state, the increase of fibrin is only small, and its whole amount may be estimated at about four * * * *. As the tubercles soften, the quantity of fibrin slightly increases, and the corpuscles decrease. Upon the formation of vomicæ, or cavities in the lungs, the fibrin is somewhat farther increased—to 5.5 according to Andral—but it never reaches the amount observed in pneumonia."

That the figures given in this quotation really prove the increase of fibrin in the blood of consumptives to be very great, although the author speaks of it as "small" when at four, will be seen, when it is stated that on the preceding page he gives a table of the normal proportion of all the constituents of healthy blood, in which he places fibrin at 2.2 in 1000 parts of blood. Hence four parts would represent it as almost doubled, while 5.5 show it a good deal more than doubled.

This same author says in Vol. II, page 740, Medical Dictionary, under Bright's disease:

"The proportion of *fibrin* in the blood is commonly increased in the early stage of the chronic malady, although not so greatly as in the acute form. Dr. Christison considers the quantity of dry fibrin to vary in healthy blood from 25 to 52 parts in ten thousand; but in the *acute* state, or stage of the disease, he has seen as high as 82, and as low as 30 parts."

Lehmann, Vol. I, page 634, says of the blood in Bright's disease:

"Such blood contains on an average more fibrin than in the normal state, while it is only in inflammatory affections of the kidneys, that is to say, in its first stage, that there is any great augmentation of fibrin."

And it should here be added that it is in the acute form of Bright's disease that albumen is generally much more profusely wasted than in its chronic form.

Virchow gives us the following significant fact in his Cellular Pathology, page 199, which applies forcibly here. He says:

"Now it is a very remarkable fact, * * * * that it is *very rarely that a considerable increase of fibrin takes place without a simultaneous increase in the colorless blood corpuscles.*"

In presenting this proof of the relative increase of fibrin in the blood in those diseases where albumen is lost from it, I do so with the full knowledge that all pathologists and chemists without exception, claim that such increase is caused by inflammation arising in any part of the system, in connection with those diseases. But that there must be a great error in this claim, handed down from one author to another, would appear to be self-evident from the following statement of *facts* connected therewith:

Fibrin is one of the *natural* constituents of *healthy* blood. It is produced in the lacteal glands, or the lacteal vessels, or both, from materials furnished to them by entirely *healthy* digestion, and is passed along through the thoracic duct into the blood in its natural proportion to the other normal constituents. Neither health nor life could be maintained a day without it. Years ago I wrote, in connection with much more upon this point, as follows: How unreasonable it seems, then, to assume and assert, as all pathologists and physiologists do, that fibrin is increased, that is, actually *produced* by inflammation, in any part of the system in which this may arise. In other words, that a *healthy* constituent of animal life can be actually organized or produced, indiscriminately, by *unhealthy* action; and this, too, in parts of the system, or in tissues where we have no evidence that the fibrin-producing function exists. How can such a thing be possible? A healthy and therefore natural constituent of the blood, or a normal ingredient in any department of organic creation, produced by an *unhealthy* and *unnatural* process is an abnormity which nature must abhor, and an absurdity upon its face, as it seems to us, for science to pretend to teach.

Nor is *proof* wanting that it is a loss of albumen, and *not* a supervention of inflammation that causes the increase of fibrin in the blood, as will be seen by the following from Watson, page 883, where he says; after speaking very fully of the qualities of the *urine* in all stages and conditions of Bright's disease, that: "In general the albumen is plentiful and almost constant in the outset of the malady. * * * * * And another fact, which it is essential for you to know and to remember, is, that, in any stage of the disease, the supervention of febrile disturbance, from local inflammation, or whatever cause, tends to renew for the time, those qualities of the urine which belong to the early period."

If this be true, then,—and there seems to be no doubt of Watson's entire conviction of its truth, from the earnest manner in which he calls attention to it by saying it is essential "to know and to remember"—we have the fact established, that there is a *renewal* of the loss of albumen in the urine, in amount corresponding with the first stage of albuminuria, whenever in *any* of its stages there arises febrile disturbance from inflammatory action. How perfectly and fully this corroborates all that is above claimed upon this subject. Here we find a marked increase in the loss of albumen *from* the blood, at the very time in the disease, when all observers say there is an increase of fibrin *in* the blood, and assert that to inflammation such increase is due. While we reassert that this augmentation of fibrin is solely due to the increased loss of albumen which Watson, as we see, tells us occurs in this disease whenever inflammation arises, thereby simply leaving the former, no less than all the remaining constituents of the blood, in so much excess of what the system can use for nutritious purposes; and this fact which this author furnishes us, is one of the most convincing evidences of the truth of our position that we have anywhere met.

If it is a fact, also, that fibrin is augmented in the serum whenever inflammation supervenes in phthisis, as many authors assert, we find it to be explained upon the same basis as the foregoing, that is, that there is an increased loss of albumen, in this case through the mucous membrane of some portion of the air passages, by catarrhal secretions, in consequence of inflammatory action arising therein. For have we not already given proof from one of the best authorities, that viscid, thick expectoration, containing much albumen, characterizes inflammation of the lungs? And if so, then is there not an increased loss of albumen in this very identical kind of expectoration, which so commonly arises whenever inflammation begins in the course of consumption, and at a time, too, when the surplus fibrin is found in the blood? Again we ask, do not these facts fully account for the excess of the latter, upon perfectly rational grounds, in all cases named belonging to this class, and without resorting to any hypothesis whatever, just the same as the similar facts did the like condition, in connection with Bright's disease? And so it must be with all other diseases where albumen is lost.

Again, if fibrin were increased by inflammation we should have to say, also, that it increased the water, colorless blood corpuscles, salts and fatty matters, where these were found in excess along with the fibrin, which certainly no one would think of doing, and which shows even more conspicuously that there has been a great error in the teachings upon this subject.

## SALTS.

Of a relative increase, or excess, of the salts in the blood, in all diseases where albumen is lost, the proof is equally conclusive, as will be seen by the following quotations. Lehmann, Vol. I, page 623, says:

"In *diseases*, the alkaline salts of the blood undergo considerable fluctuations; but on this point most of the blood analyses hitherto made are very imperfect; this much only is certain, that in severe inflammations these salts are very much diminished, and that in the acute exanthemata and in typhus they are very much increased. Moreover, C. Schmidt has especially noticed that there is a considerable diminution of the soluble salts in the serum of cholera blood, and an augmentation in dysentery, Bright's disease, and all forms of dropsy and hydræmia. Finally, it has been found by Leonard and Folley, as well as by Salvagnoli and Gozzi, that the salts are often increased to twice their normal quantity in several endemic diseases, namely, dysentery, malaria, the malignant forms of intermittant fever, scurvy, etc."

On page 634, same Vol., this author further says:

"In *dysentery* the blood is poor in corpuscles. The fibrin is generally, although not always, somewhat increased. All the solid constituents of the serum are decreased, but especially the albumen. The salts on the other hand, are considerably increased in quantity."

"In *Bright's disease* the blood presents not only a considerable diminution in the number of cells, but likewise a great loss of the constituents of the serum. The cholesterin as well as the salts of the serum are, however, augmented."

And again on page 635, same Vol., in speaking of the blood in *typhus*, he says:

"The salts and extractive matters are relatively increased, rather than absolutely diminished."

Carpenter, page 190, endorses Lehmann's conclusions as follows:

"Little is known with certainty regarding the variations of the *alkaline salts* in the blood in different diseases. The analyses which have been made, however, are considered by Prof. Lehmann to indicate that in very severe inflammations they are very much diminished; whilst they are much increased in the acute exanthemata, and in typhus, dysentery, Bright's disease and all forms of dropsy and hydræmia; and are often doubled in quantity in diseases depending upon malarious influences, such as endemic dysentery, malignant forms of intermittent fever, etc."

### FATTY MATTERS.

As to an excess of fatty matters found in the blood in diseases where albumen is lost, Carpenter says, page 190:

"The proportion of *fatty* matter in the serum, and especially of the cholesterin, has been found by M. M. Becquerel and Rodier to undergo an increase at the commencement of most acute diseases, and they have also observed an increase of fat, and especially of cholesterin, in chronic diseases of the liver, in Bright's disease of the kidneys and in tuberculosis. The quantity of fat in the blood sometimes undergoes such an augmentation as to give to the serum a constant 'milkiness.'"

Lehmann says on this subject, Vol. I, page 620:

"The most careful investigations regarding the quantity of fat contained in the serum in different diseases have been instituted by Becquerel and Rodier; from their researches it follows that almost from the beginning of every acute disease there is an augmentation of the fats in the blood, and especially of the cholesterin. In chronic diseases the fats and principally the cholesterin are especially increased in hepatic affections, as for instance, icterus and cirrhosis, as well as in Bright's disease, tuberculosis and cholera."

In speaking of the condition of the blood in Bright's disease, Vol. II, page 541, Wood says:

"The serum sometimes appears milky in consequence of the presence of oily matter."

Like the fibrin and salts, the fatty matters are often found in the excretions, etc., when left in excess in the blood by a loss of albumen.

In Vol. II, page 89, Lehmann says:

"Fat occurs only in very small quantities in normal mucus, although the quantity increases in proportion to the occurrence of albumen and larger quantities of mucus corpuscles."

In Vol. I, page 536, the same author also says:

"According to Heinrich, the amount of fat in the fæces is increased by morbid action in wasting diseases, such as pulmonary phthisis, Bright's disease, and diabetes Mellitus."

Of the excretions of the kidneys in Bright's disease, Wood says, Vol. II, page 540:

"The urine is often turbid or opalescent from the presence of oily matter."

## EXTRACTIVE MATTERS.

Notwithstanding that so little is known of the nature and uses of the extractive matters, and that chemists and physiologists have given so little attention to them in comparison with the other constituents of the blood, we are yet not without proof that they too are found in excess in diseases where albumen is lost, as will be seen by the following.

Lehmann, Vol. I, page 621 says:

"Amongst the *diseases* in which the extractive matters are increased, we may especially notice puerperal fever (Scherer) and scurvy."

In both of these diseases albumen is often if not always wasted from the blood in the *mucus* discharges so commonly attending them, if it is not in its purer state, as in Bright's disease and phthisis.

In speaking of the changes of the blood in typhus the same author says, same Vol., page 635:

"The salts and extractive matters are relatively increased rather than absolutely diminished."

In a note, in Vol. II, page 542, and on the authority of the London *Medical Gazette*, Wood says of the condition of the urine in Bright's disease that:

"Dr. G. Owen Rees has generally found one of the extractive matters of the blood, in these cases, along with the albumen. * * * * It diminishes along with the albumen in convalescence."

Here, then, we have a most important fact proved, in this connection, namely: that when the waste of albumen diminishes, and ceases in returning health, the throwing off of the extractive matters also diminishes and ceases; thus showing conclusively that the excess of the latter and the abnormal appearance of them in the urine depend exclusively upon the loss of the former, leaving them in excess in the blood, and the system expelling more or less of such excess through the kidneys to prevent in the first place, and as far as this could be done, their too great accumulation in the blood-vessels, and secondly, to avoid the necessity of their being poured out into living tissues, where they would cause serious diseases and dangerous complications that would make it impossible for any one to recover who was once attacked with the disease even in its milder forms.

And so it is, and must be, with all the other constituents, and in all the other diseases where albumen is lost, their excess shows itself with its escape from the blood, and ceases with the cessation of its waste.

# CHAPTER XIII.

## THE EXCESS OF WATER AND ITS EFFECTS.

The *excess* of water left in the blood-vessels, by the loss of albumen, being nearly six ounces for the waste of one ounce of the latter, causes the blood to be too watery during all the time such loss is being sustained. Hence the consumptive's blood is necessarily poor, thin, watery, as it is variously expressed, from the commencement to the close of his disease.

But as this excess could not be allowed to go on accumulating in the vessels from day to day, without soon destroying all the corpuscles circulating in it, and actually "washing all the tissues to death," our vital forces, which are constantly on the alert to save life as long as they can, set to work to expel as much as possible of this excess of water in every way that opportunity offers. We consequently find the kidneys of the consumptive almost always more active, than with people in health, the urine being voided more frequently and in greater abundance than is natural. Often, too, the same class of patients, especially in the early stages of their disease, perspire very easily and profusely upon slight exercise, which affords another means of their expelling surplus water. As their disease progresses, however, and they lose greater quantities of albumen, and the system cannot relieve itself of the excess of water fast enough by the processes named, or the powers of life are partially exhausted in that direction, then another action is set up, or a new factor is brought into the case, and *night sweats* are established. And, finally, as an increasing loss of albumen is going on, and all their methods are insufficient to rid the blood of the rapidly increasing excess of water, this is then poured out into the muscular system, causing general dropsy, or, into the cavity of the abdomen or that of the chest, causing large accumulations of it there, as the patient rapidly nears his end.

Such is the general course in the majority of cases, but, there are individual deviations from it, according to the natural powers possessed by each for ridding themselves of surplus water, just as there are deviations in various persons, to the usual progress of every known disease with which they may be attacked. Some discharge more, and some less water through the kidneys; some have more, others less, profuse night sweats; and some have general dropsy appear much earlier than others, while in a few this does not show at all, for the reason that they are able to the close of life to get rid of such excess by other means, so that it does not require to be effused into the tissues.

Let it, therefore, be henceforth remembered, that the night sweats and dropsies of consumption are not the unmixed evils they have hitherto been thought to be. But for them, death would occur in such cases much sooner than it does, from the blood becoming so watery as to wash organs and tissues beyond the power of performing their functions; and would, besides, dissolve all the blood corpuscles, thus preventing oxygen being carried to any part or organ beyond the air-cells, and destroying the only means of the system for ridding itself of that deadly poison—carbonic acid gas. Night sweats and dropsies are to some extent the measure of the progress of the disease, acting as a safety valve in retarding the fatal issue long beyond the time it would or could be delayed without them; while the loss of albumen is their only primary cause, as it is of all else, (as in Bright's disease), that follows in such cases, up to and including death.

Dropsy almost always appears much earlier in Bright's disease than in consumption. Indeed, it not unfrequently happens that the physician has his attention first called to the true nature and gravity of the case of a patient suffering from Bright's disease, by an early appearance of dropsical bloating of his face. The reason for this is obvious, and requires to be considered to show why there should be such a difference between this and consumption, when the two diseases are so nearly identical in their cause. In the early stages of most, if not all cases of Bright's disease, the kidneys are greatly congested, so that none of the excess of water left in the blood, nor, indeed, but little of the natural refuse water of health, can be excreted. Sometimes an ounce, or less, is all that is discharged in twenty-four hours, for weeks, and even months together. Then, as the disease advances, these organs become shrivelled, or otherwise destroyed to such an extent, that they cannot perform their functions any better than when greatly congested. Therefore, it is a physical impossibility for them to excrete from the blood-vessels but very little of the refuse water they should, to say nothing of the excess of it that is daily accumulating from the continued loss of albumen. Moreover such patients perspire but little, usually, in comparison with consumptives, seldom have night sweats at all, consequently their blood becomes more watery than in almost any other known disease, and dropsy necessarily appears early.

In consumption, on the contrary, the kidneys are almost universally healthy, at least exceedingly active in ridding the system of a great portion of the excess of water, while daily and nightly perspiration carries off another large portion, and the appearance of dropsy is much longer delayed.

It will not be without interest in this connection to cite another class of cases of dropsy, resulting from a loss of albumen through another set of organs, viz.: hydrocephalus, or dropsy of the brain in children, in connection with stomach and bowel diseases. Here albumen is lost in the mucus vomited from the stomach, or discharged from the bowels, and a portion of the excess of water left is poured out into the venticles of the brain. But here the effused water greatly hastens death, in consequence of its being forced into so small a space, and so fatally pressing upon the most vital organ of the body and speedily arresting all its functions. The tubercles so universally found in the brain in such cases, are the excess of blood corpuscles, decolorized, as will be shown in the next chapter, and deposited, along with the excess of water, thus having their share in the fatal work.

Among the curious efforts that the vital force sometimes puts forth to rid the system of a portion of the excess of water, the following cases are given as illustrations: Some fifteen years ago, a patient came under my care for treatment for chronic nasal catarrh and catarrhal irritation of the throat, from both of which parts there was a good deal of mucus secretion, and therefore, of course, a waste of albumen. His kidneys were very active, and while there was but little general perspiration, the palms of his hands would perspire profusely for hours together, almost every day, the water oozing out in little beads or small drops, which would reappear almost as fast as wiped away.

Another case of chronic nasal catarrh came under my care a few months since, where, for hours in succession, sometimes at night, at other times during the day, there was a constant dropping of water from the left ear. The cure of the nasal disease, and stopping the loss of albumen, also cured these unpleasant symptoms in both cases, without any treatment being addressed especially to them.

Again, excessive perspiration by the feet, and of the genital organs, especially of males, affords the means by which not a few who are losing albumen through some one or more of their mucous membranes, expel a greater or less portion of the water that is thereby left in excess in their blood.

And now, in concluding this important and interesting branch of our subject, the question remains to be asked: Can there be a reasonable doubt, that the foregoing fully accounts for the various phenomena named, of the abnormal discharge of water from the system, upon strictly scientific principles? If not, then how important that such excretions of water be not interfered with, except by remedying the cause, i. e., by healing the mucous membranes, and stopping the further waste of albumen. The suppression of night sweats, for instance, by "sour drops" (dilute Sulphuric acid), or by other means, with the loss of albumen still allowed to go on, and in fact increased by such harsh agents as will be seen in a subsequent chapter, must greatly hasten the exudation of the water into the tissues, or into the cavity of the chest or abdomen, thus causing general, or chest or abdominal dropsy, and thereby necessarily hasten death.

## CHAPTER XIV.

## THE EXCESS OF BLOOD CORPUSCLES, AND THE DISEASES RESULTING THEREFROM.

According to the table given there would be *seven* ounces of blood corpuscles left in excess in the blood-vessels, for every ounce of albumen lost therefrom through diseased mucous membranes. And it must be remembered that while they live and maintain their organization, and while the vessels continue healthy, or remain unbroken, the corpuscles never leave the vessels, but are kept in continual motion on a ceaseless round through them, carrying oxygen one way and carbonic acid gas the other. And further, that each corpuscle has a life of about six weeks' duration, then dies, and, in health, is entirely dissolved in the serum and excreted as refuse or worn out matter.

When left in excess, however, much of such excess has to be disposed of by other and different processes now to be shown. Of course an excess of them cannot be allowed to go on accumulating in the circulation from day to day, month after month, as in that case the vessels would soon become so filled with them that the serum could not float them, and there would be dangerous and fatal congestions arising everywhere; or they would distend the whole circulatory system to the point of ruptures and necessarily fatal hæmorrhages. Consequently nature is on guard here also to avoid these extremes of evil, and preserve life as long as possible, that time may be afforded to reach and control the true cause of it all, by healing the mucous membranes.

Among other processes which nature sets up in the earlier stages of such cases, to rid the system of an excess of corpuscles, is that of hæmorrhages from non-vital parts, congestions and the like. Hence it is that during the vigor of childhood and youth of many scrofulous subjects, and those who in after years go into consumption, we see hæmorrhages from the nose, often profuse, developed as common occurrences. The minute vessels in, or just beneath, the mucous membrane of the nostrils, become congested in such cases, and remain so, until their walls give way under the continued pressure and let out the surplus corpuscles deposited, or stagnated in them. Other organs and parts also frequently expel a portion, greater or less, of the excess of corpuscles in various cases. In the female system, after puberty, the surplus corpuscles are frequently expelled from the circulation through excessive menstrual hæmorrhages. Bleeding hemorrhoids, hæmorrhages from the bowels or liver, vomiting blood from the stomach, when the cause is not some mechanical injury, bleeding of the gums and hæmorrhages from the throat, aid many persons in getting rid of the excess of the corpuscles, and save them from worse conditions and often from speedily fatal results, should such excess not find an outlet from the system, but be retained in the circulation, or deposited in some of the most vital organs, as, for instance, in the lungs or brain.

When the forces of life have been so far overcome, either through the steady and onward progress of the disease, or the wrong methods so commonly used to *suppress* these hæmorrhages (instead of healing the mucous membranes), that they cannot throw off the surplus corpuscles through the less vital parts named, we see many of these victims having more or less violent hæmorrhages from their lungs, and then their disease is concentrated in one of the most vital of all the organs of the body, and generally, with the final fatal consequences which all so fully understand. It has long been known that children who suffer much from nose-bleed are many of them victims to consumption in after life, and now we see the reasons why, and the connection between the two conditions.

Frequently, too, congestions and abscesses are produced during the periods named, to aid in ridding many systems of such excess of corpuscles. Boils are a very common method for casting them out through the skin, hence should of course, never be interfered with except by curing their cause. If suppressed without curing their cause, then hæmorrhages, internal congestions or the development of tubercles must necessarily sooner or later occur as a consequence, in many cases. I have known in the course of my practice, several cases of consumption, and other internal tuberculous diseases, follow immediately upon the suppression of boils, where the patients had been previously entirely free from such maladies. And the exact opposite of this I have seen many times, namely, where the cure of bronchitis, congestion of the lungs, threatened consumption and the like, was attended, or immediately followed, by the eruption of boils in greater or less numbers. How common, too, to see eruptions of boils follow fevers and other acute diseases during convalescence therefrom; while not unfrequently a crop of boils, or successive crops of them, will apparently run off malarial or typhoid poisons from the system, and thus save the patient from a course of fever. In all these cases albumen is of course wasted from the blood, by the internal action of the disease irritating or abrading some of the mucous membranes, when its loss is unavoidable.

Again, the eruption of boils after extensive scalds and burns, and severe or protracted blistering by the Spanish fly, or other agents, must have a similar immediate cause in an excess of blood corpuscles that must in some way have an outlet from the blood-vessels; but with this difference in the primary cause, that in such cases, where there is no internal disease, the albumen is lost through the great and extensive injury and abrasion of the skin, which must necessarily lead to such loss as has been shown. Can there be a question, then, that all these points have a most important, yes, *vital* meaning; that boils should be promoted and never suppressed, so long as their primary cause continues, or till that is cured?

The change in the color of the corpuscles from the blood-red which is natural to them, and which they retain in boils and abscesses during their early stages, to the yellow color of these gatherings, or their discharges when fully matured, will soon be explained.

All the results named transpire in the various cases, while the system still retains the power to cast out most of the excess of water from the vessels, and thereby keep the blood at, or near, its normal density; but when, from any cause, whether from the partial loss of such power, or the increased and increasing waste of albumen, most of the surplus water is not expelled, but retained in the vessels and the serum is thereby rendered much more watery than natural, then entirely different processes are set up to get rid of, or to expel the excess of corpuscles from the circulation. But to understand these points fully it becomes necessary to here, diverge and recall some of the more essential facts of the true nature of the corpuscles.

We have seen that the blood corpuscles are shut sacs; and that each and every one of them has its own separate, individual cell-wall, which consists of an exceedingly thin and delicate membrane, holding within it a semi-fluid granular substance called globulin and also all the hæmatin or coloring matter of the blood. They are created to live in a fluid--the serum—of the density or specific gravity of about 1,028, as compared with pure water at 1,000. The density of the serum is almost solely due to the albumen held in solution in it. Hence, when a portion of this is lost, and the excess of water is wholly or even only in part retained, the specific gravity of the serum is reduced below the normal standard, and must necessarily seriously affect the corpuscles which have to live and float continuously in it. And the effect must be just in proportion to the loss of albumen, and the unnaturally watery condition of the medium in which they have to live.

It can require no argument to prove that if a thing is created to live in a certain medium, this cannot be changed and the creature continue in health. A salt water fish, or other salt water animal, cannot live in fresh water; it is utterly impossible in the nature of things, though sea water contains only about three and a half per cent of saline matter in mid ocean, and much less near land. Even the coarsest and hardiest plants, and those lowest in the scale of creation, die almost at once if their surroundings are much changed from what is natural to them; and suffer in health just to the extent that such change is carried. It is a matter of almost mathematical exactness. How soon trees and plants that are natural to a comparatively dry soil die if transplanted to a moderately wet one, and *vice versa.* Then how must it be with the infinitely more delicate blood corpuscles?

It is the same with us. We are created to live in a certain medium, the air, which holds suspended in it a certain amount of water in the form of vapor or invisible moisture. Increase this moisture to any considerable extent, or even only moderately, and have this increase continuously maintained, we should die prematurely, solely in consequence of it, while we may continue in perfect health during our allotted time, other things being normal, if the moisture is kept within the limits of its natural standard. When it is too great, and so continues, our systems absorb the moisture; the excretion of even the refuse water, by perspiration, etc., is seriously checked; we become dropsical or are bleached in consequence; that is, become pale, sicken and die.

Exactly these things are repeated upon the blood corpuscles when the serum of the blood is rendered too watery from any cause, whether the loss of albumen, or the continued ingestion of too much watery food, as is often the case with those in great poverty; and the effect is in just the proportion that the serum is thereby made too watery. Indeed, this whole matter is governed by a law of nature, and there is no possible escape from it.

The law is that of *Endosmosis*, and the conditions for its active manifestation are as follows: Place a partition of an animal membrane perpendicularly across and down through an open mouth vessel, a tea cup or common goblet, for instance, and make it water-tight where the edges of the membrane join the cup, so that no fluid can pass from one side to the other of the membrane, except as it passes through it. Then pour pure water in upon one side, and salt water, or a solution of sugar, or albumen, upon the other, and the pure water immediately begins to transude the membrane, passing *through* it into the salt water, or other solution upon the other side. And the demands of this law are so inexorable as to overpower and annul the law of gravity. That is, the pure water will continue to pass through the membrane until it raises the fluid in the salt water side above its own (pure water) level. In fact if a sufficient quantity of it is added, it would cause that upon the opposite side to pour over the top of the vessel, or it might thus be raised to a great height in a sufficiently deep vessel.

Another example of the operation of the law of Endosmosis, which corresponds better with the effect that dilute serum has upon the blood corpuscles is as follows: Fill a bladder or section of animal intestine with salt water, a solution of albumen or sugar, and tie tightly so that nothing can escape, then immerse it in pure water, and the latter will pass through its walls, under the direction of the law, until it fills the bladder or intestine to the point of bursting.

Were either only partially filled with the agents named, the transuding process would still go on until rupture of the sac occurred. It is simply a question of a less dense fluid passing into one more dense whenever and wherever the opportunity offers.

While the foregoing is transpiring, a small fraction of the salt water or other agent, will pass through the membrane into the pure water, as is proved by the latter being given a slightly saltish taste, and this is called *Exosmosis.* But the quantity passing this way is almost infinitely less than that passing in the opposite direction.

The blood corpuscles are similarly affected when they have to circulate in a serum made too watery by a loss of a portion of its albumen; seldom, however, to so great an extent, as the serum is never reduced to, or nearly to pure water; and still other results and changes, that correspond to their specific nature, are wrought upon them. These changes, which constitute the transformation, in color, form and all other outward appearances, of the blood corpuscles into the so-called tuberculous corpuscles, and the development of tubercles therefrom, we must follow closely and with great care, if we would understand the most essential, or at least, the most intricate and interesting points in our whole subject. And to fully understand it all we must recall the more prominent characteristics of the blood corpuscles.

They are as stated, shut sacs of a blood-red color, invested with a delicate membrane, flattened upon their opposite sides into more or less of the disc shape; and they all have to pass through the capillary blood-vessels in single file, the minute size of most, if not all these vessels forbidding the corpuscles from passing side by side or grouped together. In many of these vessels the larger corpuscles have to partially roll up upon themselves, to pass through.

Consequently, when they circulate in a serum, that is diluted or thinned by a loss of albumen, and absorb the water therefrom, as described in the case of the bladder or section of intestine, they are distended by it to more or less of the globular form. Under this form their rolling up upon themselves is rendered impossible, so the larger ones cannot pass through the capillaries, but become lodged or congested in them, and cause an obstruction to the further circulation of corpuscles through those capillaries, until such obstruction is, by some process, removed.

But this is by no means all that happens to the corpuscles under such conditions, nor are these claims based upon guess-work, or theory, for all the best authors assert that when blood is drawn and poured into pure water, the law at once commences its work upon the corpuscles, as may be distinctly seen by the microscope, they absorb water, and are distended to the full globular form by it, when their coloring matter is dissolved out of them and diffused through the water to finally settle at the bottom of the vessel in an impalpable powder, leaving the corpuscles colorless and nearly transparent. They are then, of course, entirely destroyed as blood corpuscles, are dead, and like all animal tissues in the first stage of their decomposition, become viscid, or sticky, which is another great hindrance to their passing the capillaries when circulating within the body. And as the process of distension goes on, their cell walls are soon ruptured, letting out the other contents, globulin, etc., and all are completely dissolved and held suspended in the water that has destroyed them.

That precisely these changes are wrought upon the red corpuscles when they have to circulate within the system, in a serum thinned, or diluted, by a loss of a large portion of its albumen, is proved by the following from Carpenter's Physiology:

"A very rapid disintegration of the Red Corpuscles appears sometimes to take place when a morbid poison is present in the blood, or when its composition has been seriously affected by the loss of its other constituents. Thus Dr. C. J. B. Williams mentions a case of Albuminuria proving fatal in *six days*, with effusion of pus into the joints the day before death, in which the coloring matter was found to be dissolved in the liquor sanguinæ, scarcely any perfect corpuscles being left."

It is not often, however, that the serum becomes so greatly diluted as in this case; in consumption, seldom or never, so much so, as it does in the ordinary cases of Bright's disease, because of the greater facilities the system retains for the expulsion of the excess of water in the former disease, as already shown; consequently the corpuscles are not distended to the point of bursting, or at least, but a small portion of them are; but they are dilated, have their coloring matter washed out of them, and become viscid or sticky as described. Then when these glutinous corpuscles come to pass through the capillaries a new difficulty arises, in addition to their globular form and inability to lessen their width. Their viscidity causes them to adhere to the inner walls of the capillaries when brought into contact therewith, and often to become permanently congested therein. Other corpuscles follow and become fastened to those already arrested in their course, until a capillary is obstructed beyond its power of finding relief. Then from the force of the current of blood behind, given to it by the heart's action, more corpuscles are crowded into it, until the walls of the vessel are distended into a protuberant sac, and all possibility of any further circulation of corpuscles through it destroyed. Often, if not always, it must happen that corpuscles which have not yet been decolorized, are arrested by the obstruction and held with the rest. The diluted serum goes on, however, percolating through the vessel among them, until they are decolorized as the others had been before their deposit.

The distention of one capillary, as described, necessarily presses upon and narrows the channel through many adjoining capillaries (they lie so close together in most of the soft tissues, it must be remembered, that the finest needle's point cannot penetrate among them without wounding several) so they become all the more readily obstructed, and thus the congestion goes on extending outwardly from capillary to capillary to any size that an abscess or a tubercle is ever known to reach; for if such congestion is not now soon arrested and dispersed, either an abscess or a tubercle, according to circumstances soon to be noted, will be the inevitable result. Many capillaries more or less remote from each other, and yet within certain distances, may become congested at, or near the same time, and the congestion go on extending laterally from each capillary until all become united in one general mass, and thus greatly enlarge its dimensions.

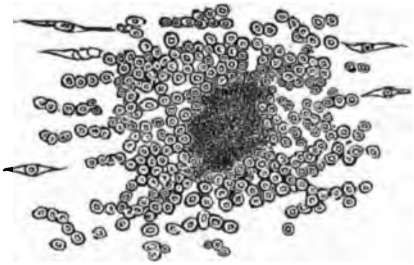
The corpuscles being colorless and transparent in the fully distended and decolorized state, a congested mass of them would be translucent—the tissues in which they are embedded not permitting full transparency—in its early stage; but as it increases in size, to considerable proportions, the central portions of it must be severely pressed upon—forming as it does in resisting tissues—until the serum can no longer percolate through among the corpuscles, and the fluid they retain may be, so to speak, pressed out of them; or it may, indeed, be given up by them under the law of endosmosis, to the surrounding tissues, for these are more dense than the present contents of the corpuscles. The latter then shrivel more or less, as the case is acute or chronic, or the mass becomes an abscess or a tubercle, lose their transparency and become yellowish white. All nutrition for the walls of the capillaries and other tissues included in the mass being now cut off, they are absorbed, and the corpuscles come together forming an abscess if the case has developed rapidly enough for that, or a tubercle if of slower growth.

If there has been quite rapid loss of albumen in acute disease, and the corpuscles are deposited rapidly, but in comparatively small numbers, a small acute abscess will be the result, and the corpuscles will not be much shrivelled; if deposited rapidly and in great numbers, a large acute abscess will be the consequence, with many, if not most, of the corpuscles scarcely, if at all shrivelled; if slowly, but in great quantity, in any given part, a chronic abscess like the lumbar abscess which is always tuberculous, or a chronic abscess of the lungs, is the result, and most of the corpuscles will be much shrivelled. Finally, if they are deposited both slowly and in small quantity in any part, as in consumption and scrofula, thus giving the corpuscles the greatest time and opportunity to yield up all the surplus water that has worked so many changes in and upon them, they shrivel to the fullest extent, and become the so-called tuberculous corpuscles, presenting every feature of the latter, the same size, and the identical color—a dirty yellowish white, and often a light gray—with all the various forms in which they are ever found, as "angular," "gnawed," "elongated," "star-shaped," etc., etc., and every other characteristic, chemical or otherwise, that tuberculous corpuscles are known to possess.

All this shows the direct connection there is between both the acute and the ordinary chronic abscesses of the lungs, and tubercles, or the tuberculous destruction of these organs which so often follows the former. The abscesses exhaust the vital vigor of the lungs when the case degenerates into tuberculous action by the decolorized corpuscles being deposited at various points, and going on slowly to the organization of tubercles.

It will, of course, be understood that the much slower deposit of the corpuscles to constitute tubercles, their consequent much slower growth, and usually, their much smaller size as compared with abscesses, allows of their continuing their growth and maintaining their organization much longer, often for months and sometimes even for years, than it is possible for ordinary abscesses to continue. But when they do finally suppurate, the process and results are very similar to the abscess. Congestion and inflammation set in around and within them, the walls of the capillaries and the other involved tissues become absorbed, or softened, so as to give way and allow the corpuscles to come or flow together, making a *tuberculous* abscess, and its contents then soon find an outlet from the system.

Let it be understood that neither imagination nor theory has been drawn upon in this case more than any other, to constitute tubercles as described, for it is a *fact* that they are all without exception, and wherever developed, found to be made up of a great number of *granules*, as Virchow calls them, each of which granules consists of a little nest of tuberculous corpuscles, inclosed in a protuberant sac of very delicate walls, and corresponding exactly, in every respect, with a distended capillary blood vessel, wall and all, filled with decolorized blood corpuscles, as described, after they have shrivelled. The following figure from Virchow must settle the matter beyond question.



That the tubercle is often translucent, or, in fact, transparent in its very earliest stages, just as the fully decolorized blood corpuscles would make it, when first deposited, and then becomes yellowish and opaque as the corpuscles always do when they give up the most of the water that has distended them and shrivel, is proved by the following from Gross' Pathological Anatomy, where he says of the nature of tubercle:

"In certain parts of the body, as for example, in the peritoneum, we can detect nature, as it were, in the very act of her work, and distinctly examine this substance as it is about being converted from the fluid into the solid state. In several cases of chronic inflammation of this membrane, I (Gross) have discovered tubercles in every possible stage of development, some of them—evidently deposited only a day or two before the individuals expired—being of a soft viscid consistence, and perfectly transparent appearance; others semi-concrete, yellowish, and consequently more or less opaque; and lastly, another set, perfectly dense and firm like fibro-cartilage, organized and covered by an accidental serous membrane of the most delicate texture."

Why, the similarity of this description to that of the growth of tubercle in the preceding pages is so close, that even those most recently deposited were "of a soft viscid consistence," he says, which exactly correspond to the sticky corpuscles after they are decolorized and destroyed as blood corpuscles. When the blood corpuscles are deposited in the tubercle in any numbers, before they are decolorized, as often happens, such tubercle would not, of course, be transparent. And it seems needless to add that Gross' teaching of the nature and cause of tubercle was that of the profession of his day, which is not at all like Virchow's, and does not correspond in the least particular with what has been given in the preceding pages. But he unquestionably gave the facts exactly as he saw them after the tubercle was organized, and of what great value they are in this connection has been seen.

## NEGATIVE TESTIMONY.

It has always hitherto been taught under every previous theory of the cause of tubercles, that they were primarily organized, and continued their growth entirely outside of all blood vessels, simply because they were found developed outside of and around arteries and veins of the medium and larger sizes. But one of the strongest possible points of negative proof that could be given to show that they must commence their growth within the capillaries, as is claimed in the preceding pages, is found in the most significant *fact* that, tubercles have *never yet been found in cartilages*, and there are *no blood vessels entering cartilages*, by which the decolorized blood corpuscles would be carried into them to be deposited to make tubercles. There are, however, little canals ("canaliculi"), running everywhere through the cartilage, which can, and do, carry everything that is in *solution* in the blood, to every part of them, and which must and would carry the matter of tubercle into them to be there organized, the same as in bones and all other parts, if that matter were held in solution in the serum, as every previous theory of tubercle has invariably taught, was the case. It must be self-evident, therefore, to every thinking mind, that it is to the blood corpucles, which are the *only* part of the blood that never does or can enter the cartilages, that we must look for the production of tubercles.

Another almost equally significant fact in this connection is this: that tubercles are most frequently found invading and destroying parts where the capillaries are most numerous, or lie closest together, as in the lungs, in which the "interspaces are smaller than the capillary vessels themselves;" and less and less frequently where the capillaries are less numerous, or lie further apart, until we come to the bones which are the least frequently ravaged by tubercles of any vascular tissue; and finally to the cartilages with no capillaries and no tubercles. All this, too, corresponds *exactly* with what Virchow says is the actual method of development and growth of tubercles in all parts where they do grow, as is seen by the microscope, notwithstanding his theory of their cause is so entirely different from that here presented. He says in his Cellular Pathology:

"Now, the reason why I think that the name of tubercle must be specially retained for this formation as being extremely characteristic of it, is this, that the tubercle—granule—never attains any considerable size, and that a tuber never arises out of it. Those which are wont to be termed large tubercles, and attain the size of a walnut, or a Borsdorf apple—as for example in the brain—are not simple tubercles. You will generally find the tubercles in the brain described as being solitary, but they are not simple bodies; every such mass (tuber) which is as large as an apple, or even not larger than a walnut, contains many thousands of tubercles; it is, in fact, quite a nest of them which enlarges, not by the growth of the original focus (granule), but rather by the continual formation and adjunction of new foci (granules) at its circumference. If we examine one of these perfectly yellowish-white, dry, cheesy tubera we find immediately surrounding it a soft, vascular layer, which marks it off from the adjoining cerebral substance—a closely investing areola of connective tissue and vessels. In this layer lie the small, young granules, now in greater, now in less number. They establish themselves externally [to the previously existing ones] and the large tuber grows by the continual apposition of new granules (tubercles), of which every one singly becomes cheesy; the whole mass, therefore, cannot in its entirety be regarded as a simple tubercle. The tubercles themselves remain really minute or as we are wont to say *miliary*. Even when on the pleura, by the side of quite small granules, large yellow plates, looking as if they were deposited upon the surface, are met with; these too are not simple tubercles, but masses composed of a large aggregate of originally separate granules."

Virchow, in giving this minute description of tubercles, of course, recorded exactly what he saw with the microscope, as to their internal structure, and their method of growth, without reference to, and independent of any and all theories of their cause, and in that respect it must be entirely reliable. So whenever found, and whatever their shape, whether in mass like a walnut or in thin plates, their intimate structure is the same, and *exactly* as though made up of capillaries filled, as claimed, with decolorized blood corpuscles. In fact there is nothing in the whole range of diseased developments in any organ or tissue of the animal body that corresponds in the least to his portrayal of the exact make-up of tubercles, except the capillaries filled with the changed blood corpuscles, and this it does fully and perfectly in *every* respect. In such case the growth must necessarily be, as he says it is, upon and from the surface, not internally, "by the continual formation and adjunction of new foci (granules) at its circumference"; these foci, or granules, being the capillary blood-vessels congested with blood corpuscles that have had their hæmatin mashed or dissolved out of them, when the resemblance is complete down to the most minute detail. And thus the tubercle grows outwardly from capillary to capillary to any known size they ever attain, and the larger ones contain many thousands of "granules," capillaries filled with the decolorized corpuscles. When the tubercle suppurates, too, the walls of the "granules" give way, are absorbed or dissolved, and the contained corpuscles flow together precisely as has been described of the congested capillaries and their contents, therefore how can it be otherwise than that the two are *one and the same thing?*

### IDENTITY OF DECOLORIZED BLOOD AND TUBERCULOUS CORPUSCLES.

Tubercles have been long known to be constituted almost wholly—aside from the involved healthy tissues—of almost infinite numbers of very minute granular cells, called tuberculous corpuscles, varying in diameter from about $\frac{1}{5000}$ to $\frac{1}{2500}$ of an inch, which destroy any and every part of an organ in which deposited, unless they are soon absorbed. The resemblance between these and decolorized blood corpuscles has been in part already pointed out. The two are identical in color, being nearly colorless and transparent in their distended state, and varying from a yellowish white to a very light yellowish gray, as both do when shrivelled; in form they are also identical, both assuming the exact shapes, as angular, elongated, star-shaped and the like, upon giving up the water that distended them; and they correspond equally well in size, the blood corpuscles when distended to the globular form being from about the $\frac{1}{4000}$ to the $\frac{1}{2500}$ of an inch in diameter, as are the tuberculous corpuscles in their distended state, while when shrivelled both vary from about $\frac{1}{3000}$ to $\frac{1}{2500}$ of an inch in size, measuring from those that are the most shrunken to the longest diameter of those that are star-shaped, elongated, etc.

But these are by no means all, nor are they the most important points of resemblance between the two. The internal structure of the two, down to the most minute detail, is the same. Both are constituted, for instance, almost wholly of minute granules, ten to thirty or more, which are also identical in form, color and structure, invested with and held together by a cell wall, a transparent membrane of equally delicate structure. Their chemical composition and reactions are also alike. Both contain fatty matter, "partly in very fine granules and partly in vesicles," and the same salts, as the chlorides, phosphates, and the like; while the action of acetic acid upon the one is identical to what it is upon the other.

But the most striking and most characteristic, perhaps, of all their resemblances is that neither has a *nucleus*, and yet these are the only two exceptions, the only two kinds of cells, in the great number and variety of cell-structures throughout all animal life that are destitute of nuclei.

*What can all this mean, then, except that the two are the* SAME?

## WHAT BECOMES OF THE HÆMATIN.

The hæmatin, or coloring matter, which is washed out of those corpuscles that are decolorized, is unquestionably disposed of as follows: The young and more vigorous of scrofulous subjects, many of whom go into consumption in after years, are marked upon the face and hands with the so-called sun-spots or freckles. These are from a deposit of hæmatin in spots, often in quite large patches, just beneath the scarf-skin of the hands and face, and sometimes upon other parts of the body; at least the so-called moth spots of such subjects, are no doubt from the same cause.

In the less vigorous and older of these subjects, or in those where their disease has advanced to the point of exhausting their vital force, so that they can no longer throw the surplus hæmatin to the surface and rid the circulation of it through that comparatively non-vital part, the skin, it is then thrown off, as long as it can be, through the internal or more vital organs or parts; through the kidneys, for instance, giving the deep or dark color to the urine, so nearly universal in such cases; through the bowels, causing the too deep color, dark brown, etc., so common to the fæcal discharges, in disease, even up to those that are almost black; and it is also no doubt disposed of in other ways, in too deeply colored diseased products.

It is a well settled fact in pathology that many, if not all, diseased formations possessing colors ranging all the way from light yellow up to and through all the shades of red, even to the black, are colored by hæmatin, or a material very similar to it. What then, is more natural, than that this should be from the *surplus* hæmatin washed out of decolorized corpuscles? Such colored products are certainly not found in health, but often, if not always, when there is evidence of a watery state of the blood, or this is a deranged state. When the blood is in a healthy or normal condition, no such colored abnormal products can, by any possibility, appear.

Another point in this connection also demands attention.

In malignant cases of typhoid and scarlet fever, and in other cases of malignant acute diseases, purple spots called petechiæ, purpura, etc., are developed upon various parts of the body. And in these cases we have the positive evidence of a profuse waste of albumen, and of the blood being in a more or less dissolved state; therefore such spots also owe their origin to the coloring matter dissolved out of the decolorized corpuscles.

# CHAPTER XV.

## DISPOSITION OF THE EXCESS OF FIBRIN.

In the disposition of the excess of fibrin left in the blood by a loss of albumen, we find the most remarkable and reliable evidence, to be found anywhere in diseased action, if not equal to anything found in health, of the preservative care that nature is constantly exercising over us in health as well as in disease. It has often been said that fever is a purifying process to rid the system of effete or morbid matters, and that other diseased conditions have a similar purpose; but the proof of this is not so easily established. It is a complicated subject, and just what the morbid matters are that require to be expelled it is very difficult, if not impossible, in the present state of our knowledge to always make out. Not so, however, in regard to the excess of fibrin, or a portion of it; for in the formation of abscesses, or the deposit of a mass of tubercle, whether small or large, fibrin is poured out into the tissues around the gathering mass and condenses into a firm, dense and impervious wall for the resulting cavity.

An excess of fibrin gives a greater coagulability, or plasticity to the blood than it possesses in its natural state. Of this Carpenter says:

"This increased plasticity of the blood, however, may frequently be regarded in the light of an 'effort of Nature' to antagonize the consequences of that depression or positive destruction of the vitality of the solid tissues which seems to form an essential part of an inflammatory condition; and thus it is, that whilst the central part of a mass of tissue, in which the inflammation has been most intense, suffers complete death, and is carried away in the suppurative process, the peripheral part, in which the violence of the inflammation has been less, becomes infiltrated with plastic matter poured out from the blood, and forms the solid and impermeable wall of the abscess."

But for this provision or "effort of Nature," death would occur from the simplest abscess, or even from a common boil; first, either from the extensive diffusion of the pus through all the adjoining tissues, thus poisoning vital parts and even the blood itself, or, secondly, from the inability of the blood-vessels that are thus cut off by the suppuration, to close, which would allow the patient to bleed to death in spite of anything that could be done by art to prevent it. On this point the same author says:

"The results of *deficiency* of coagulating power in the blood are fearfully seen in that continued and uncontrollable flow which takes place in purpura, the blood not being able to form a clot sufficient to fill up even the wound made by the scratch of a pin; in the want of circumscription of collections of pus within an abscess, allowing its infiltration through tissues that were previously healthy, and thus occasioning a widespread destruction of organized texture, which is characteristic of certain forms of inflammation"; and "in the want of a corresponding limitation between the living and the dead parts in gangrene, so that hæmorrhage takes place on the separation of the slough, the vessels not having been previously obstructed by coagula."

Every tubercle, however large or small, and wherever deposited, whether in the lungs or other organs, is closely invested by a portion of the excess of fibrin, evidently poured out around it for the express purpose of having it condense into the firm wall described, before the tubercle suppurates, thus circumscribing and localizing as much as possible the destruction of tissue by its suppuration, and preventing the diffusion of the pus through a large portion of a lung or other part, to fatally poison everything with which it comes in contact. And, besides this, we find the other equally, if not more important protection afforded by the said wall, in the fact that it condenses firmly around every blood-vessel, thereby tying each one of them, so to speak, while at the same time they are plugged by coagula of fibrin forming within them, thus doubly guarding against fatal hæmorrhages when the abscess bursts. All the smaller and medium sized vessels involved in a mass of tubercle are almost universally closed in this way, while in the great majority of cases the larger and even the largest vessels are as effectually taken care of in the same manner. But for this preservative care exercised over them, every patient would speedily bleed to death upon the bursting of even the smaller or smallest abscesses. Time, and often a long period of time, is thus ensured, in which we may bring to bear the proper curative means to stop the loss of albumen, and thereby stop all that usually follows from that cause in such cases, and so restore the patient to health. But we must be sure that it is the proper curative treatment that is adopted, and not something that will aggravate every feature of the case.

Such preservative efforts so constantly and, for a time, so effectually exercised over us should give mankind greater confidence in Nature, or the life principle within us, than has ever hitherto been manifested; and should teach us to avoid violence in trying to remedy mere effects, but to reach and control the primary and true cause of all by healing the mucous membranes, and thus preventing the further waste of albumen.

Another portion of the excess of fibrin in these cases is disposed of in the organization of "false membranes" forming adhesions upon the pleuræ and other parts. M. Louis says of such adhesions in the lungs of consumptives:

"Nothing was so frequent as the adhesion of the lungs to the pleuræ; for in a hundred and twelve cases there only existed *one* in which the two lungs were free in the whole of their extent. We have only found the right lung completely without adhesions eight times; the left only seven, and in these cases there were either no tuberculous excavations or only those of very limited dimensions."

Carpenter says of false membranes and adhesions:

"We see the consequences of *excess* of the proportion of fibrin, and of that increased plasticity (or tendency to fibrillate) which usually accompanies its augmentation, in the tendency to form those plastic effusions which are so characteristic of the inflammatory state, and which, if poured out upon serous or mucous surfaces, constitute 'false membranes' and 'adhesions,' or if infiltrated into the substance of living tissues, occasion their consolidation."

Even such a disposition of the excess of fibrin is by no means the unmixed evil that it might seem, and which it has been hitherto generally regarded; for, if it was not expelled from the blood, into, or, upon some part or parts, but allowed to accumulate in the blood-vessels, clots of it technically called "emboli," and "thrombi," would soon form and rapidly increase in size by more of it adhering or attaching to them, until a large artery or one of the cavities of the heart would be filled, with almost instantly fatal results. This actually and not unfrequently appears in some cases of tuberculosis and in malignant cases of diphtheria, when the patient always dies suddenly. The same cause also not uncommonly terminates life suddenly in other diseases, as in apoplexy, inflammation and enlargement of the heart following inflammatory rheumatism, and the like. Hence if the excess of fibrin was not poured out from the blood-vessels to form false membranes and adhesions in consumption, most consumptives would die suddenly and in the early stage of their disease, from such clots forming in the circulation: Another fact to induce us to place more trust in Nature's *modus operandi.*

As diphtheria has been heretofore mentioned, it may be well to say that the membrane in this, and also in membraneous croup, which is the cause of so much danger in both diseases, is constituted almost solely of fibrin, and from an excess of it left in the blood by a loss of albumen, through the mucous membranes, and when the clots form in the vessels that so suddenly take life, it is because, first, either the fibrin is brought so rapidly into a relative excess by a profuse and rapid loss of albumen; or, second, the excretion of it is interfered with to such an extent that the circulation cannot rid itself of it, and it coagulates because of its great excess therein.

## CHAPTER XVI.

### WHAT RESULTS FROM AN EXCESS OF FATTY MATTERS.

M. Louis says of his extensive examinations of the dead of consumption:

"The *fatty* transformation of the liver was the most frequent, and at the same time, most remarkable alteration of this organ. It existed in one-third of the cases (forty out of one hundred and twenty). In this condition it was pale, almost always of a light brownish-yellow color, spotted with red externally and internally. It retained its natural form; but its volume was nearly always augmented and at times double its usual dimensions. * * * * Its consistence (with the exception of cases where the alteration was but slightly pronounced) was greatly diminished; it easily yielded to traction, and was sometimes much softened. In very advanced cases the scalpel and hands were greased as by ordinary fat substances. When the morbid change was less evident, we ascertained its existence by placing a thin section of the liver on a piece of paper and exposing it to the flame of a candle; a very slight heat melted a small quantity of fat, saturated the paper, and thus demonstrated its presence."

Of the cause of all this he says:

"The causes of the fatty transformation of the liver appear to us equally as obscure as those of other chronic diseases."

The cause, however, is not obscure when it is once established to be a loss of albumen through the mucous membranes, leaving a relative excess of fatty matters in the blood-vessels. Such excess cannot, of course, be allowed to go on accumulating in the blood any more than could the excess of fibrin, or all nutrition would soon be destroyed; hence it is poured out, or deposited in the liver in the cases named, to rid the circulation of its injurious presence; and herein lies the explanation of the so-called fatty transformation and fatty degeneration of various tissues and organs, which has hitherto been regarded as one of the greatest mysteries in disease. Of course, the presence of the accumulating fat upon the natural tissues of an organ would necessarily cause these to be absorbed and give place to the encroaching substance, and so an organ may be changed in part, or almost wholly to fat, without our having to resort to a mere assumption of the metamorphosis of all kinds of tissues into fat.

The question remains to be properly settled why the two-thirds of M. Louis' cases did not show fatty livers, or what became of the excess of fat in such cases. Albumen was lost in these just as certainly as in the other cases, and, if there is any truth in the foregoing theory, the fatty matters were left in the same relative excess in the blood. Well, here is the solution of this point. Nothing is more common than for consumptives to throw off oily matters in their expectoration, by the bowels and through the kidneys; while not a few have oily perspiration, and it is in these several ways that those who do not have fatty livers, or other fatty deposits in the system to use up the fat, dispose of their excess of fatty matters.

Some years ago I was consulted by a young lady who had suffered several years from a severe chronic nasal catarrh, and the one symptom of which she complained more than all the rest was an almost constant oily secretion upon the nose and adjoining portions of the cheeks. It could often be seen, and always felt, greasing the fingers when passed over it. And only very recently, in carefully examining every feature of a case of very large ovarian tumor, I found the patient's urine completely covered with a thick film of oily matter. This patient has had for years, and now has, much throat and bronchial irritation, with wheezing or rattling cough and considerable expectotion, therefore has long been and is now losing considerable albumen.

## HOW THE EXCESS OF SALTS IS DISPOSED OF.

The excess of salts, of which there are 41 grains left in the blood for the loss of each ounce of albumen, is disposed of similarly to the excess of fatty matters; that is, by deposit in living tissues, causing the so-called ossifications found in various parts, or it is thrown off in the expectoration, through the bowels, or by the kidneys. The urine of consumptives is almost always heavily loaded with salts, thus relieving their systems of a great portion of the excess of salts, and it is not uncommon for them to throw up actual calcareous concretions of considerable size, or even branches of them that have formed in the bronchial tubes, while nothing is more common in scrofulous as well as consumptive subjects than an enlargement of the ends of the bones in both the small and large joints, by which a greater or less portion of the excess of the salts in their system is constantly being disposed of. Bony tumors in scrofulous subjects, afford another means for ridding their blood of a greater or less portion of the excess of salts.

Calcareous concretions, or chalky deposits in the joints, is the way in which another class of patients dispose of the excess of salts in their blood. This is not an uncommon occurrence, and is, in fact, an almost every day experience in practice.

## THE EXCESS OF EXTRACTIVE MATTERS.

The extractive matters being regarded as mostly if not wholly refuse matters, little being known of their composition, it is impossible to determine as yet to what diseases or diseased conditions their excess leads; though there can be little doubt that they must produce disturbances or diseases characteristic of their composition.

## CHAPTER XVII.

## THE CONTAGIOUS OR GERM THEORY OF THE ORIGIN OF CONSUMPTION.

Consumption is an *inheritable* disease, and is inherited in many cases. All the arguments that it is possible to bring forward cannot overturn this clinical observation of centuries. Contagious diseases, on the contrary, are not inherited. Small-pox, scarlet fever, measles, whooping-cough, cholera, etc., are not inheritable diseases and are never inherited. If a child has either of the first three in utero, as is sometimes claimed, but which is very rare if it occurs at all; nevertheless the child does *not* inherit the disease but has it by communication from the mother's blood, goes through it as in extra-uterine life, and that is the end of it. Even in that most virulent of all contagious poisons, viz., syphilis, the primary disease is not inherited, but only the secondary or tertiary form of it, and in that form it is not communicable by contagion or contact. Or, if by possibility, the child does have the primary disease during uterine life, it is because of the mother's having it in the primary form at the same time and communicating it to the child directly through the blood, as claimed for small-pox, scarlet fever, or measles; but this is not inheriting it, as is the case with consumption. In case of the child's having primary syphilis develop soon after birth, and not before, it is then infected from the mother by direct contact during birth, so in any event the primary disease is not inherited in that form any more than any of the other contagious diseases. And here it is well to bear in mind that when syphilis is inherited in the secondary or tertiary form, it is a certain cause of consumption with many of the victims, which is another and strong proof that phthisis does not have one special or specific cause.

Again, if there is a specific germ of tubercle, all tubercles must be produced by such germs, and *never by anything else.* It would be falsifying the whole logic and economy of nature to say otherwise. Corn, oats or barley cannot produce wheat, nor can the latter produce any of the others; nor can anything in all nature, or any combination of things, produce any of these grains, excepting the specific germ that was created to produce each of its kind. The virus of small-pox cannot produce scarlet fever or measles, or *vice versa*, and neither of these diseases can be produced by anything but its own specific virus; hence it is repeated that if the tubercle has a germ in any case, it has it in all cases and must always be produced by that specific germ and never otherwise. Do we not all know, on the contrary, that it has numerous primary or remote causes? And when the effects of these primary causes are scrutinized it will be seen that in all cases they act in producing catarrhal irritations of the mucous membranes, a waste of albumen, and through this the tubercles. Nothing is much more common than the fact that many primary syphilitic subjects, after their disease has been suppressed, sooner or later go into consumption; but this is because the poison in such cases locates upon the mucous membrane of the lungs, greatly irritates it and thus leads on to consumption; and the same is often true of those who inherit the secondary or tertiary form of syphilis. So common is it that syphilitic subjects, whether through inheritance or otherwise, have consumption, that it has led some able writers to assume that this poison through remote inheritance if not of recent origin, is the cause of all tubercles. But this is, of course, an error, although it is a fact that suppressed primary syphilis, and the inherited secondary and tertiary forms of it, will and do often produce tuberculosis in such subjects; this also destroys all claim to the latter having a specific contagion or a germ of its own to always cause it.

But we have much more direct evidence to overturn this germ theory of the cause of tubercles, as will be seen in the following:

In 1878 the Queen of England commissioned Prof. Andrew Clark, F. R. C. P., of London, to accompany the Marquis of Lorne and family on their official voyage out to Canada that year. After completing the duties of that mission, Prof. Clark visited New York and delivered a lecture to the physicians of that city, on the "Varieties of Pulmonary Phthisis," in which the following positive statements were made:

"You know that some years ago Villemin experimented upon rabbits, producing what was then called tuberculosis. At that time, with the assistance of two colleagues, I was also experimenting, and I discovered that not tuberculous matter merely, but almost any matter injected into the neck of the rabbit would be followed by symptoms which some would call acute tuberculosis; that is to say, the inoculation of pus into the neck of the rabbit was followed in eight or nine days by an eruption of little bodies resembling tubercles, scattered throughout the body. You also know that nine-tenths of those who have written upon the subject yet believe, both in England and in this country, that it is acute tuberculosis, and I introduce the subject for the purpose of entering my protest against such views. Now, in all the animals the phenomena observed were as follows: There was, after the inoculation, a little fever; and I defy anybody to cut an animal, however slightly, without producing a little fever. After eight or nine days there was an eruption of what, we will admit for the moment, was tubercles. Following this peculiar eruption, if the rabbits were kept in tolerably favorable circumstances, the entire process of so-called tuberculosis passed away, and the health of the animal was entirely restored. Now, it seems if we are to call that acute tuberculosis, we are using language wrongly, for there is nothing in this disease which attacks adults or children that prevents ill effects upon the system. It develops the phenomena of fever, which fever progresses more or less regularly, and at the end of three to six weeks the case terminates in death. With this brief reference to acute tuberculosis, I will dismiss this portion of the subject."—*New York Medical Record*, December 14, 1878.

Here, at last, then, tubercle stands before us stripped of all its mystery, in so far as the claim of its being reproduced alone by itself, or caused by any one specific taint or poison; and Prof. Clark and his colleagues deserve the thanks of the profession for their work, and the candid enunciation of the results thereby obtained. The battle is almost won in any contest with nature, when the glamour of mystery that want of knowledge throws around most subjects, is once dispelled.

Bear in mind the full force and significance of the language quoted, viz.: "*Not tuberculous matter merely*, but almost *any matter* injected into the neck of the rabbit, would be followed by symptoms which some would call acute tuberculosis." Common pus is especially spoken of as causing such a state of the system; and right here comes up a point of great interest, for common pus, that is, its corpuscular element, is nothing more nor less, in any case, than red blood corpuscles that have stagnated, or been congested in the smallest blood-vessels of a part, and been *decolorized* either before or after their deposit, but not given time or opportunity to shrivel, the same as are all tuberculous corpuscles, so-called, when the blood corpuscles have been similarly congested in the capillaries, but time and opportunity given them to shrivel.

It matters not, with reference to our present inquiry, whether Prof. Clark was right or wrong in denying that the conditions produced were acute tuberculosis. The point is, he says he "discovered" that whether he inoculated with "tuberculous matter," "common pus," or "almost any matter," "in *all* the animals," the results *were the same.* If tuberculous matter did not produce tuberculosis, or if any other matter did, in either case the whole claim of a specific nature, or poison, in tubercle, falls to the ground —a fact, certainly, of the utmost importance to know on a subject involving the lives of one-fifth of our race, and one which has hitherto been obscured by so much *guessing.*

This, then, remands this whole subject of tubercle to the domain of reason and the stern logic of facts, of which sufficient is already known for its complete and proper solution. Tubercle constitutes but one factor in the disease we call consumption, as night sweats do another, fatty livers another, adhesions of the pleura another, the great and characteristic emaciation another, and so on; and the logic of them all, and of their combination to make one general whole, nothing does or can explain but the waste of albumen.

Again, October 18, 1882, Prof. H. F. Formad, of the University of Pennsylvania, read a paper, by invitation, before the Philadelphia County Medical Society, on "The Bacillus Tuberculosis and some Anatomical Points which Suggest the Refutation of its Etiological Relation with Tuberculosis," published in the Philadelphia *Medical Times* of November 18, 1882. After stating that he had examined "microscopically the tissues of about five hundred animals" for the National Board of Health, "and also those of a similar or still larger number of various animals used by members" of his "classes in experimental pathology in the University laboratory during the last five years," he divides all animals into two classes, the scrofulous and non-scrofulous, as follows:

"To the scrofulous class belong unquestionably the tame rabbit and guinea pig, and all animals in close confinement; while to the non-scrofulous belong the cat, dog and animals at large."

Then he says if the scrofulous animals are inoculated, or have introduced under their skin, any kind of matter, whether tuberculous, diphtheritic or what not, even to "chemically clean powdered glass," and survive the first results of the experiment, large numbers of them die of tuberculosis. But inoculating the non-scrofulous animals in the same way, that is, under the skin, even *with pure tuberculous pus*, will not produce tuberculosis. This class requires the introduction of the inoculating material into the peritoneum, or the anterior chamber of the eye, whether it be tuberculous pus or the so-called bacilli tuberculosis, in order to produce tubercles in them. And here, again, if other kinds of matter be introduced into the same parts, even to common sand, the results are the same as if tuberculous matter were used. This, as will be seen, utterly annihilates all claim to there being a specific cause of tubercles. His statements are so positive and unequivocal that liberal quotations are given from them, and even the whole lecture might be quoted with advantage, so important and so directly applicable is it to our subject. In a well sustained argument showing the great liability of injuries to the serous membranes resulting in tuberculosis, among many other things he says:

"True tuberculosis can be produced in non-scrofulous animals through simple injuries of serous membranes; and this seems to be also well established for men."

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"The *second* exceptional point in the etiology of tuberculosis is the occurrence of miliary tuberculosis secondary to simple inflammation of serous membranes in normal non-scrofulous beings. Experiments, clinical observations, and autopsies sustain this fact. At the same time it appears that inflammatory processes affecting parts of the body other than serous surfaces do not lead to tuberculosis in non-scrofulous subjects. I will recall here that the anterior chamber of the eye, which is occasionally used as a point for inoculation with tubercular virus, is also a serous sac. Of the same character is the choroid coat, of which ophthalmoscopic examination reveals tubercles so beautifully in cases of miliary tuberculosis."

"There are cases on record of traumatic injuries of the eye-ball in non-scrofulous persons, in which general tuberculosis was a consequence."

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"First Litten, clinician to the Charité in Berlin, and subsequently other clinicians and pathologists, called attention to the important fact that true miliary tuberculosis may be caused directly by acute pleurisy and peritonitis in persons not predisposed to phthisis, and without any cheesy masses being found in any part of the body. * * * * Again, it is a well-known fact—any text-book of pathological anatomy gives it—that inflammatory products in serous membranes give rise occasionally to peculiar nodular formations, the so-called pseudo-tubercle. * * * * Moreover, it is also well established that primary true tubercle occurs in the organized inflammatory products of serous membranes."

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"Koch has unquestionably produced tuberculosis in the peritoneum of his cats and dogs." And he "could just as well have used some sand for inoculation, and saved his valuable cultures of the bacillus tuberculosis for inoculation into some other parts of the bodies of the non-scrofulous dogs, cats, rats, etc."

"Why did Dr. Koch inoculate the latter named animals only in the peritoneum and anterior chamber of the eye, while scrofulous animals (rabbits and guinea pigs) he inoculated indiscriminately in any part of the body? This is a mystery. Let us try to solve it."

"I wish to mention some of our experiments in connection with tuberculosis."

"The experiments on diphtheria, of Prof. H. C. Wood and myself, have shown that those rabbits which did not succumb to the disease within a few days, nearly all died of tuberculosis in the lapse of four to six weeks or more. In order to see whether the diphtheritic material acted specifically in the production of tubercle, or whether the latter was merely the result of inflammatory process, we experimented by inoculating rabbits with non-tubercular and perfectly innocuous foreign material, such as pieces of glass, metal, wood, etc. The result was, in the majority of cases, cheesy, suppurating masses at the seat of inoculation, followed in the course of a month or more by death from tuberculosis."

"To-day I can safely testify that Dr. Wood and myself have seen die of tubercular disease proper more than one hundred rabbits out of five or six hundred operated upon, without a single one of these animals having been knowingly inoculated with tubercular matter of any kind, and without any intention on our part to study tuberculosis in them. All rabbits and guinea pigs subjected to injury in any part of the body in the various experiments and surviving the immediate or acute effects of the latter, had, with only a few exceptions, but one fate, viz., to die of tuberculosis, provided they lived long enough after a traumatic interference to develop the lesion in question."

"These facts were also particularly well brought forward by the results of a carefully conducted series of one hundred special experiments on tuberculosis, executed by Dr. O. C. Robinson, in the Pathological Laboratory of the University of Pennsylvania:"

"In non-scrofulous animals, viz., other than rabbits and guinea pigs, neither Robinson nor Wood and myself, nor any other experimenter, ever succeeded in producing tuberculosis by inoculation, unless done in the peritoneum or anterior chamber of the eye."

"No one, including Koch, ever produced tuberculosis in animals not predisposed to it, by inoculation into the skin, for instance. Koch's records of his own experiments prove this, and show that whenever he desired to produce tuberculosis in the rabbit or guinea-pig by means of his bacillus, he inoculated indiscriminately into any part of the body; but if he wanted to demonstrate the effects of his parasite in the non-scrofulous animals, he promptly inoculated into the anterior chamber of the eye, or preferably into the peritoneum. After what has been explained in connection with inflammation in serous membranes, it is evident that these experiments do not prove that the bacillus is the cause of tuberculosis."

Here are many things to consider, but Prof. Formad's statement of facts is so clear and explicit that a general recapitulation cannot be necessary. There are a few points, however, to which special attention should be given. "Koch's records of his own experiments prove" that he could not produce tuberculosis "in the non-scrofulous animals," "by means of his bacillus," unless he inoculated into the peritoneum or eye. Again, *no* "experimenter ever succeeded in producing tuberculosis" in "non-scrofulous animals" by inoculation with tuberculous or whatever kind of matter, "unless done into the peritoneum or anterior chamber of the eye." And yet, the insertion of "pieces of glass, metal, wood, etc.," into the *same* parts would produce tuberculosis just as readily as would tubercular pus or the bacillus tuberculosis; while the simple insertion of the same non-tubercular materials under the skin of scrofulous animals produced identically the same results that the tubercular matter had upon that class. Could anything more positively and absolutely prove the non-specific character of tubercular matter, or the bacillus tuberculosis as an infectious agent, than this? If wood, glass, etc., produce *exactly the same results* as the so-called parasite of tubercles, when used in the *same way*, medical men had better give their time to other things than to waste it trying to prove that tuberculosis is a specific contagious disease.

Another fact to consider is the great number of animals, a thousand or more, operated upon and examined by Prof. Formad. This effectually precludes the possibility of mistakes to which a few experiments might lead or with which they might be reasonably charged. Think of this: "More than one hundred rabbits out of five or six hundred operated upon," dying of tuberculosis, "without a single one of these animals having been knowingly inoculated with tubercular matter of any kind, and without any intention on our part to study tuberculosis in them." And "all rabbits and guinea-pigs subjected to injury in any part of their bodies in the various experiments, and surviving the immediate or acute effects of the latter, had, with *only a few* exceptions *but one fate,* viz., to die of tuberculosis, provided they lived long enough after a traumatic interference to develop the lesion in question." Many of these developments it must also be borne in mind, were the result of inoculation with diphtheritic membrane, in their study of that poison. If this does not effectually dispose of the germ theory of the origin of tubercles, then nothing ever can or ever will.

But the critical reader may say of all this, that it proves too much for the good of this volume; and ask what becomes of the claim, that it is a waste of albumen from the blood that causes tuberculosis, if tubercles are so readily produced by the simple insertion of any form of non-tubercular matter, either under the skin of some animals or into the peritoneum of all others. This is not an idle question, and can be settled only by candor and a strict adherence to the truth, or to all the facts bearing upon it.

It is a common, if not a general thing, for experimenters upon animals, in their efforts to produce tubercles, to first poorly feed, and also to keep in close confinement for a considerable time, the animals upon which they intend to operate. Prof. Formad says on this point:

"Non-scrofulous men or animals may acquire the predisposition to tuberculosis through mal-nutrition and confinement."

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"The first experiments to produce artificially and intentionally a scrofulous condition in the cat and dog were made by Dr. A. C. Robinson, in the Pathological Laboratory of the University of Pennsylvania, in 1880. This he accomplished by keeping the animals in close confinement and on rather poor diet for eight months. Injuries on the skin of the neck which previously had healed promptly, now repeated, gave rise to a bad cheesy suppuration, and within three months the animals died. Autopsy revealed miliary tuberculosis of nearly all organs."

"I have lately repeated this experiment on cats. Taking a piece from the upper lip of one of them, the connective tissue was found normal on microscopic examination. One year later, this cat having been kept in confinement and poorly nourished, again a part of the lip was examined, and I found the connective tissue similar to that of a scrofulous animal, the lymph spaces being filled with many cells. No injury had previously been inflicted on the lip. The cat had been inoculated with diphtheritic and erysipelatous matter several times, both in the thigh and the back, which ultimately led to a cheesy mass at the seat of inoculation. Finally the cat was accidentally killed, and miliary tubercles were demonstrated in lungs, liver, kidneys, spleen and lymphatic glands. Three other experiments, in which the animals were not kept so long a time, failed. One of a number of well-fed dogs which I have kept for the past eighteen months (tumor experiments) was accidentally killed, and microscopic examination showed the impairment of the connective tissue of the described scrofulous character to a moderate degree."

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"It is highly probable from the above experiments on animals that the normal man may acquire a scrofulous anatomy if ill-nourished, from a long continued disorder of the digestive tract, from the deficiency of food or exercise, etc., this condition predisposing to tubercular disease. A cold or bronchitis, which in former days passed off rapidly, now in his debilitated system hangs on and leads to phthisis."

Well, it cannot require either evidence or argument to show the consequences upon animals of a "poor diet" and "close confinement," continued for from eight months to a year, and even longer in some cases. Among the certain and inevitable effects of such treatment are emaciation and a *too watery state of the blood,* just the same as when albumen is lost. And why? For the simple and sufficient reason that poor food and a deficiency of even that does not furnish the animal with enough albuminous matter to supply the blood with its requisite quantity of albumen; therefore, this is primarily deficient therein in all such cases, with many of the consequences to which its waste leads, the serum being made or left very watery thereby. And the blood corpuscles, or the older and weaker of them, can no more live and keep healthy in this too watery medium, than the salt water fish can live and keep healthy in fresh water, or in that which is deficient in salt below what its nature requires. Such corpuscles, therefore, are bloated or become dropsical, are distended to the globular form, have their hæmatin taken out of them, are left colorless, become sticky in the change, lodge in the capillaries in consequence, distend these into protuberant sacs under the force of the circulation from behind, then slowly give up the excess of water that has wrought these destructive changes in them, and shrivel to become the so-called tubercular corpuscles—the capillary sac so filled, or a very few of these together, constituting the miliary tubercle, while large numbers of adjoining capillaries filled in the same way constitute tubercle in mass, to any size that the latter is ever known to grow. It matters not whether it is purposely depriving the animal of albuminous food, or whether it is a waste of albumen in catarrhal discharges from the mucous membranes, that causes its deficiency in the blood, thus leaving this too watery, the results must of course, be the same upon the corpuscles circulating in this thinned serum, and the consequences to them wholly due to that in either case.

And this brings up another matter of importance. Every observing physician knows that either men or animals poorly fed finally become very catarrhal, if not made so at first by such treatment as many are; hence, in their catarrhal discharges, in addition to the fact of its being already deficient in the blood in consequence of poor feeding, all such persons waste albumen; so here we have a double cause for the deficiency, and results to correspond. What physician, especially in city practice, has not seen babies become catarrhal that are brought up on the bottle with both stale and too watery milk, and seen many of them go down with dropsy of the brain, a purely tubercular disease (Wood), if they do not perish in the catarrhal stage of the quicker acting disease, viz., cholera infantum? Prof. Formad says, as will be seen in the last paragraph quoted from him, that the "normal man," that is "ill-nourished," contracting "a cold or bronchitis, which in former days passed off rapidly, now in his debilitated system hangs on and leads to phthisis." In this case we know there is a profuse waste of albumen in the expectoration from the cold and bronchitis, therefore here again the evidence is made complete on this point.

Is there, then, no such thing as the bacillus tuberculosis, about which so much has been said and written? There is what has been called bacillus tuberculosis, but let us see how simple this whole question is made by a few plain facts. Every tubercle is encased in a dense impervious wall of fibrin. Besides this there are partitions, bands, cords, and threads of fibrin running through every tubercle, and in addition there are also flakes of it in many of them.

In all instances this fibrin exits in threads woven and bound together to make the walls around, and the partitions, bands and cords of it through tubercles. When the tubercle softens under suppuration much of this organized fibrin is first disintegrated into the separate threads that compose it, and then these threads, under the further rotting by the suppurative process, are broken up into short sections, which have recently been dignified with the title bacilli tuberculosis, whereas, they are nothing but pieces of the threads of fibrin broken up in a somewhat peculiar manner, by, or under the slow rotting of the tubercle. The author has taken fibrin from a perfectly healthy animal's blood, washed the clot until there was nothing else left in it but fibrin, placed it under a microscope and has seen it to consist of nothing but threads in enormous numbers; then he put it into a small quantity of distilled water to rot, rotted it slowly, and thereby obtained precisely similar forms, to what Professor Eberth of Germany obtained from the sputa of consumptives and labelled, bacilli tuberculosis.

Now, there is no mistake about any part of these statements. There *is* fibrin in and about every tubercle as asserted; this fibrin is much of it disintegrated and separated into its individual threads by the suppuration of the tubercle; and then the threads, or many of them, are broken up a little later into short pieces, which then correspond in every particular to the bacilli tuberculosis. The author has seen a specimen of said bacilli, prepared by Professor Eberth, who is one of the highest authorities upon the subject; has also rotted fibrin slowly in a small quantity of water as stated, thus breaking up the threads of it in a similar manner to the suppuration of tubercle, compared the two, and found them identical in color, length, size, a partially frayed out appearance at the ends of many of them, and the same of some of them at points along their sides, etc. These statements, therefore, are not mere assertions, but demonstrated and established facts, and when in connection with the facts asserted by Professors Clark and Formad, after such extended investigations, viz., that tubercles are readily produced by "almost any matter," wood, sand, powdered glass, diphtheritic membrane, or what not, introduced under the skin of scrofulous animals, or into the peritoneum or the anterior chamber of the eye of non-scrofulous animals, it is not too much to say that the whole claim of tuberculosis being contagious, or the tubercle having its specific germ, is completely overturned, rests upon no scientific basis whatever, and all the literature with which the profession has been flooded within the last few years, sustaining that claim, is worse than useless.

"Here is another significant fact. Not one of all the investigators and advocates of the germ theory of the origin of tubercles, has ever told us there were fibrin forms in tuberculous pus, corresponding in appearance to their bacilli tuberculosis, or made the slightest allowance for their presence; and yet such forms *are present therein* in *every* instance. Why this silence? Simply because they did not stop to consider that such forms of fibrin were present, and mistook them for something else, which, under the craze to account for all diseases by means of bacteria, they elevated into the position of germs of tubercles. The fibrin threads always, and without exception, break up into sections, or pieces, under rotting, no matter where or how this rotting is carried on, and these pieces are the bacilli of the germ theorists. The suppuration of the tubercle is a rotting process and always performed slowly, because of too little fluid to hasten it, as in the case of rotting fibrin in plenty of water, or in acute abscesses. Hence the results from disintegrating the fibrin threads is somewhat different in the former, from the two latter instances, although as previously said, the slow rotting of pure healthy fibrin in but little water will bring the same results upon some or much of it, as is done by the slow suppuration of tubercles.

Finally, the reader must not forget that the conditions which certainly lead to tubercles in many cases, exist long prior to the tubercles, or any possible germs of them; and that these conditions are produced by causes as different from the assumed bacilli tuberculosis as it is possible to conceive. There is the debility, the emaciation, and the too watery blood, that no specific germ ever did or could produce, which for years or more, and not infrequently half a life-time precede the tubercles, and which have their ample cause in a waste of albumen from the blood in catarrhal or mucous discharges. Again, there is the fact that the blood corpuscles cannot live and keep healthy in this too watery serum, or only the younger and strongest of them can exist for a time, while the weaker and older ones, or those past middle life, must be and are decolorized into so-called tuberculous corpuscles, which are deposited to make the tubercles, and which, as we have seen, no amount of argument can disprove, but everything sustains. Indeed, the germ theorists reverse and invert the whole order of nature, for their so-called germs *do not* appear until the fruit, viz., the tubercle, has ripened, in fact not until it has *begun to decay;* and then we find them to be nothing but pieces of broken threads of fibrin, or the most natural and simple results, not causes, that can be conceived of. Is it any wonder that Professors Clark and Formad found, after such careful and extensive investigations, that the facts in the causation of tubercles were wholly at variance with the claims of the theorists?

# CHAPTER XVIII.

## THE MINUTE STRUCTURE OF TUBERCLES.

Proof of a most remarkable character, considering that it is given to establish an entirely different view of the cause, origin, and production of tubercle, from the one here advocated, may be drawn from the following, from Virchow's Cellular Pathology, page 522. He says:

"The tubercle-granule never attains any considerable size, and a tuber never arises out of it. Those which are wont to be termed large tubercles, and attain the size of a walnut or a Borsdorf apple, as for example, in the brain—those are not simple tubercles. You will generally find the tubercles in the brain described as being solitary, but they are not simple bodies; every such mass (tuber) which is as large as an apple, or even not larger than a walnut, contains many thousands of tubercles; it is quite a nest of them which enlarges, not by the growth of the original focus (granule), but rather by the continual formation and adjunction of new foci (granules) at its circumference. If we examine one of these perfectly yellowish white, dry, cheesy tubera, we find immediately surrounding it a soft, vascular layer which marks it off from the adjoining cerebral substance—a closely investing areola of connective tissue and vessels. In this layer lie the small, young granules, now in greater, now in less number. They establish themselves externally (to the previously existing ones) and the large tuber grows by the continual apposition of new granules (tubercles), of which every one singly becomes cheesy; the whole mass, therefore, cannot in its entirety be regarded as a simple tubercle.

"The tubercles themselves remain really minute, or, as we are wont to say, *miliary*. Even when on the pleura, by the side of quite small granules, large yellow plates, looking as if they were deposited upon the surface, are met with; these too are not simple tubercles, but masses composed of a large aggregate of originally separate granules."

We see by this, that tubercles are not simple or solitary bodies, as they have usually been described. Each "mass (tuber) which is as large as an apple, or even not larger than a walnut, contains many thousands of tubercles; it is quite a nest of them which enlarges, *not by the growth of the original focus* (granule), but rather by the continual formation and *adjunction* of new foci (granules) at its *circumference*." Now this is precisely the way a tubercle must grow, by the deposit in the capillaries, of the decolorized blood corpuscles, as we claim. One, or a few adjoining capillaries are first filled with the corpuscles to the extent which they will hold. These being distended by the congestion, press upon each other, and upon those immediately surrounding them, which obstructs the latter, so that the viscid corpuscles more readily secure a lodgement therein. And so it extends outwardly, from capillary to capillary, and this necessarily involves a growth at and upon the *circumference* of the mass, as Virchow says is the case.

The known diminutive size of the capillary blood-vessel would allow of many thousands of them, each filled with all the corpuscles it would hold, being contained within the size of a walnut or apple, and these constitute the so-called foci, or granules of Virchow. Again, as will be seen by reference to the quotation, he says: "If we examine one of these perfectly yellowish white, [the exact color again of decolorized blood corpuscles in their shrivelled state] dry, cheesy tubera, we find, immediately surrounding it, a soft, vascular layer, which marks it off from the adjoining cerebral substance,—a closely investing areola of connective tissue and vessels. In this layer lie the small, young granules, now in greater, now in less number."

Here, again, is accurately described what would happen in the growth of tubercle, by the deposit of surplus blood corpuscles in the capillaries. The small, *young* granules would necessarily be found at the surface of the mass, in the vascular layer which invests it, for all the capillaries which were within the space occupied by the mass are already filled, and no more of the changed blood corpuscles can be carried in there, to be deposited, therefore they must be left in the vessels at the surface, if at all. The vascular layer, which marks the mass off from the adjoining substance of an organ, is an adventitious growth of vessels, similar to those frequently, if not always, found existing in or around morbid growths, and affords more capillaries than naturally exist in the parts, to receive the corpuscles, and in this way aid in getting rid of more of their excess than could otherwise be done. This would, perhaps, be more especially the case in parts where the capillaries are naturally farther removed from each other (as in the brain, where Virchow describes this method of growth) than is the case in tissues which contain them in greater abundance, or in which they exist nearer together, as in the lungs. And this would necessitate the growth of the "tuber by the continual *apposition* of new granules," filled capillaries, "of which every one" would "singly become cheesy," and "remain really *minute*, or, as we are wont to say, *miliary*."

Whatever the form in which the tubercle may grow, whether in masses of globular or irregular outline, or in plates, the same fact holds good. On the pleura and peritoneum, it would be in plates which would be no thicker than the depth of capillaries in these thin membranes would allow, when filled, and in these cases, too, the tubercle would be "composed of a large aggregate of originally separate granules."

To show still further the granular character of tubercle, and that the granules of blood corpuscles must be the source of this, we quote the following from Wood, volume I, page 116. He says:

"The microscopic constitution of tubercle has been *definitively* ascertained by M. Lebert, whose statements have been essentially confirmed by subsequent observers. The constituents, before the softening of the tubercle, are: 1st—a hyaline, formless substance; 2d—molecules or molecular granules in great numbers; and, 3d—peculiar and characteristic corpuscles; the two latter being held together by the translucent material first mentioned. The corpuscles are quite distinct from all others. They are seldom perfectly round, but are irregularly polyhedral with rounded angles, approaching sometimes the spherical, and sometimes the oval form. Their diameter varies from about $\frac{1}{5000}$ to $\frac{1}{2500}$ of an inch. Within the transparent envelope is a somewhat translucent matter, probably of a solid consistence, in which are embedded from three to ten or more granules. Water does not change them. Acetic acid renders them more transparent, and enables us to determine positively that they contain no nucleus; by which circumstance, as well as by their shape, and their much smaller size, they are readily distinguishable from pus corpuscles. In only one instance did Lebert ever detect a nucleus. These peculiar corpuscles are found in all varieties of tubercle. They are numerous and closely compacted together, and to this circumstance probably owe their irregular form.

"When the tubercle softens, the cementing hyaline substance liquifies, and the corpuscles thus set free imbibe apparently a portion of the liquid, become somewhat larger, and assume a spherical shape. In the progress of the change, the cell wall ultimately dissolves, and the included granules are liberated, thus increasing this constituent of the tuberculous mass."

Nothing could more definitely portray the character of tubercle than this, and when properly dissected, and its full meaning seen, no one point can be stronger in proof of our position.

We see that the constituents of tubercle, before softening, are: "1st—a hyaline formless substance; 2d—molecules or molecular granules in great numbers; and, 3d—peculiar and characteristic corpuscles; the two latter being held together by the translucent material first mentioned"—and that, "when the tubercle softens, the cementing hyaline substance liquifies, and the corpuscles thus set free imbibe apparently a portion of the liquid, become somewhat larger, and assume a spherical shape. In the progress of the change, the cell wall ultimately dissolves, and the included granules are liberated, thus increasing this constituent of the tuberculous mass." How exactly does this result, upon what Wood calls the characteristic tuberculous corpuscles, correspond with the result which would be wrought, by like means, upon the decolorized blood corpuscles, which had been deposited, and shrivelled by giving up the great bulk of the water which distended them. This class of corpuscles must first be expanded to the spherical shape, by the action of a fluid upon them of less density than their own contents, and finally, as this more dilute fluid accumulates within them, they must burst, or their cell walls be dissolved, thus liberating their included granules into the surrounding matter. And if it is true that the granules which are liberated by dissolving or bursting the cell walls of the characteristic tuberculous corpuscles, increases this identical constituent of the tuberculous mass, or rather, if the granules so liberated are identical with the molecules or molecular granules, which Wood says exist in such great numbers in tubercles *before* the softening of these, the question is, how came they here free and independent of those corpuscles which furnish the like granules upon bursting, under the process of suppuration? Is it not clear that like corpuscles had had their cell walls dissolved, or burst, and thus yielded their granules, before the deposit of either to make the tubercle? Such is the fact, and such is precisely what our theory calls for. Some of the decolorized blood corpuscles, that is, a greater or less number of them according to their weakness by age, etc., and according to the extent to which the serum is diluted, or the length of time they have to circulate in diluted serum before they can secure their deposit in the capillaries, must inevitably be burst, or have their cell walls dissolved, which would liberate the included granules into the serum, and then these would be deposited along with the corpuscles which were strong enough to resist the agencies that destroyed their fellows, or which were deposited so soon after being decolorized that time was not afforded for their bursting, and in this way, the two together make the tuberculous mass of molecular granules and characteristic corpuscles, as Wood describes it.

Therefore, we would ask: Can it be possible, that such a chain of evidence as we have presented upon this subject, all pointing in the same direction, and without any conflicting testimony upon a single link in the entire chain, is to be found anywhere in Nature without its indicating a great truth? If so, it would be but a hollow mockery of all of man's most earnest and candid investigations into those things in this life, which concern him more than all else besides.

## CHAPTER XIX.

## CONSTITUENTS OF TUBERCLES, AND EXPLANATIONS REGARDING THEM.

The great diversity of opinion, and the numerous contradictions of each other by the best pathologists and microscopists about the constituents of tubercles, and their proper explanation, have so complicated the subject and confused all, that the following attempt is made to clear up and simplify these matters as much as possible.

### GIANT CELLS.

Giant cells of tubercles are capillary blood-vessels congested with fully decolorized, transparent, blood corpuscles, and distended by them into protuberant sacs. They may also consist, in some cases, of similarly decolorized blood corpuscles escaped through the broken walls of a capillary into the lymph spaces of a part and there embedded, or, perhaps, be enveloped more or less completely in an adventitious and very delicate membrane of fibrin, with threads of the latter extending off into the surrounding interspaces, to furnish the so-called processes of giant cells. Still, there can be little doubt that the collapsed walls of the capillary at each end of where the latter is distended into the protuberant sac, and also the collapsed walls of other capillaries anastomosing with the former at or near the sac, have been taken for said processes.

### TRANSPARENT TUBERCULAR CELLS.

Transparent tubercular cells are red blood corpuscles decolorized to transparency by circulating in the too watery serum of the consumptive, then congested in the capillaries to constitute tubercles.

### YELLOW TUBERCULAR CELLS.

Yellow tubercular cells are red blood corpuscles that have first been congested in the capillaries before losing their color, then decolorized by the inflammation they excite and thus changed to a yellow color. The hæmatin is not so fully taken out of them by the inflammatory decolorizing process, as it is by their continuing on in the rounds of the circulation in a much too watery serum, consequently they are left more yellow. It should be further stated that the transparent cells after remaining incorporated in a tubercle a short time, begin to give up to the surrounding tissues, through endosmosis, the excess of water that has so fully decolorized them, and then they also become yellowish, but not so yellow as those decolorized by inflammation. It is these more fully decolorized blood corpuscles that make the gray tubercular matter, or that having something of the color of old ashes, which is so commonly expectorated by consumptives in the advanced stages of their disease.

### TUBERCLES OF GROSS.

The perfectly transparent tubercles of Gross are those constituted of perfectly transparent tubercular cells, "evidently deposited only a day or two before the individuals expired." That is to say they are formed of blood corpuscles entirely decolorized in the serum of the last stage of phthisis, when it becomes more watery than at any other time in the disease. These tubercles are then "of a soft, viscid consistence and perfectly transparent appearance."

### TUBERCLES OF LÆNNEC.

The grey or semi-transparent tubercles of Læennec are those that generally form earlier in the disease than the foregoing, or before the serum becomes so excessively watery; and consist of similarly decolorized blood corpuscles, but with the color not so completely taken out of them as in the above instance, thus leaving the tubercles partially opaque or translucent. Or the perfectly transparent tubercles of Gross become semi-transparent if they have time, but not many days, to give up the great excess of water that has decolorized them, and shrink enough to destroy their transparency. In this last case, when time is given, and with grey tubercles generally, fibrin is poured out from its excess in the blood into and around the tubercle, there to organize and hold all in a firm mass.

## YELLOW TUBERCLES.

Yellow tubercles are such as are constituted of blood corpuscles first congested in the capillaries, then decolorized to yellow by inflammation, as already said of yellow tubercular corpuscles.

## THE KNOT OF VIRCHOW.

The tubercle granule, or knot of Virchow, is the individual capillary filled with blood corpuscles decolorized to yellow by inflammation. It is the same thing, in fact, as the semi-transparent giant cell of other authors, the only difference being in the way the blood corpuscles are decolorized. Every yellow tubercle of much size is made up of thousands upon thousands of these granules.

Besides the decolorized blood corpuscles there are several other kinds of cells incorporated in a tubercular mass. For instance, there are:

1st. Proliferated and worn out, or dead cells from the epithelial lining or inner walls, of the blood-vessels.

2d. Proliferated and dead endothelial cells, or cells of all the kinds that are cast loose at their death into the lymph spaces outside of the blood-vessels, and then carried along in said spaces to the tubercle, where their further progress is obstructed, and they become incorporated in it.

3d. Proliferated and worn out connective tissue cells, which are all embraced in the preceding, said cells being all expelled into the lymph spaces when dead.

4th. Proliferated and cast-off epithelial cells from the inner walls of the air cells and small bronchial tubes, in all cases where tubercles form in the lungs. There is often a great profusion of these in tubercles in the lungs.

5th. All tubercles that form in the glands contain, of course, great numbers of proliferated and worn-out gland cells; and those that form in the brain contain brain cells, etc., etc.

The word "proliferated" in the foregoing means, of course, that all the cells named are, in these cases, grown in excess of the requirements of the various parts in health. Being grown in excess of what is natural, they must be cast off in excess when they are worn out and die, hence there is a great excess of them to be incorporated in tubercles; and by my letter to Dr. Formad, in the March, 1883 number of THE ADVANCE it will be seen how all these cell structures secure the nutriment to grow them in excess.

### FIBROUS STAGE.

The fibrous stage of tubercle is the first stage wherein the fibrin is extravasated from its excess in the blood and organized through and around it, holding its constituent elements in a firm resisting mass like concrete albumen, or often almost of a cartilaginous consistence. This is also the so-called *crude* stage of tubercles. As it ripens, however, or especially when inflammatory action is excited by it to lead on to softening or suppuration, then the organized fibrin permeating the mass is absorbed from, or broken up by suppuration in the central portions of the tubercle, while that upon its surface, with more poured out and added to it, condenses to form the impervious wall of the resulting abscess to thus shut off its poisonous contents from percolating in every direction into the interstices of the healthy tissues. But for this provision the smallest tubercle in a lung would, upon suppuration, spread its poison in every direction, and speedily destroy that entire lung.

### INFLAMMATORY AND SUPPURATIVE STAGES.

The inflammatory and suppurative stages of tubercles are, of course, what the terms signify; that is, first, the inflammation that congestion or the presence of foreign matter in living tissues, is so liable to excite; and, second, the suppuration that inflammation, whether acute or chronic, so commonly produces.

### CHEESY STAGE.

The cheesy stage of tubercles is the ripened stage of many of them; and yet it is not the suppurative stage of such. This comes when the organized fibrin, or the natural tissues—as the walls of the capillaries, the nerves, connective tissue, muscular fiber, etc., held within the tubercular mass—are all, or nearly all, absorbed out of it, to bring the decolorized blood corpuscles and such other dead cells as may be mingled with them together in a friable or crumbling mass like old rich cheese. This is also called the caseation of tubercles. Many tubercles, however, go on rapidly to suppuration, and into a semi-fluid condition, without ever really presenting the cheesy stage.

### FATTY DEGENERATION.

The fatty degeneration of tubercles results from a deposit, in the first instance, of a portion of the excess of fatty matters left in the blood by a loss of albumen in the tubercles, along with the decolorized blood corpuscles that principally constitute them; or, secondly, there is a deposit later, of some of this excess of fat, and an absorption, under pressure or otherwise, of more or less of the decolorized blood corpuscles; or, thirdly, there is an absorption of more or less of the other elements of the decolorized blood corpuscles, but leaving their fatty constituents as a fatty deposit. Some one of these, or all combined, cause the fatty degeneration of tubercles. Of course, it is not a supposable case that dead and decaying blood corpuscles, or other dead cells, in a dead mass like a tubercle, can set up organic action and generate oil, or fatty matters of any kind out of the chemical ingredients of these dead cells. This cannot be possible, hence fatty degeneration must result in one or all the ways stated.

## CRETIFICATION.

The cretification of tubercles like the foregoing, is brought about in a somewhat similar manner; that is, a portion of the salts always found in excess in the blood in such cases, is deposited at first, or later, along with the decolorized blood corpuscles in such quantity as to give the tubercle a fragile, brittle, or chalky appearance; or, the organic matters are absorbed from the corpuscles, thereby leaving their mineral ingredients in the place formerly occupied by tubercle.

It is a significant fact, too, in this connection, that laudable pus, the corpuscles of which are also blood corpuscles decolorized by acute or sub-acute inflammation, not unfrequently becomes cheesy, or undergoes fatty degeneration or cretification in the same manner, and for similar reasons that tubercular corpuscles pass through these changes; and shrivelled pus corpuscles have many times been mistaken for tubercular corpuscles. In fact nobody can now tell the difference between shrivelled pus corpuscles and tubercular corpuscles, unless they *go behind the mere appearances to the eye* and consider how the two originated.

As already said, the impervious wall of the tubercular abscess, as such, is constituted of the excess of fibrin in the blood in all such cases, extravasated freely upon and all around the tubercle, where it condenses and organizes into this impervious wall.

This is one of the greatest of all the great conservative principles of nature. But for it, as before said, the smallest tubercle in a lung or other organ, would, on suppurating, destroy that entire lung or organ, by allowing the liquid poison of the resulting pus to percolate in every direction through the interstices of the tissues—or the lymph spaces—to the most remote parts, carrying to the entire organ irritation, inflammation, mortification and death.

Even when a tubercle forms in the most remote part of an organ, as in the apex, or near the outer surface of a lung, and has to point towards, and find an outlet for its pus at considerable distance, in a bronchial tube of sufficient size to carry it off; or, when one forms in either extremity of the liver, and points towards the gall bladder or gall duct to find its outlet; or, when tubercles develop in the loins to produce psoas abscess, and find an outlet for their pus away down on the thigh: in all these, and every other instance, fibrin is extravasated from its excess in the blood, step by step, in advance of the progress of the abscess towards its final outlet, and there organizes into the impervious wall of the fistulous canal, to safely conduct off all the pus and poison, and not allow any of it to escape and burrow in the interstices of any of the surrounding healthy tissues. Not even so much as the millionth of an inch is anywhere left unguarded or uncovered, to allow the least particle of the liquid poison to spread or go elsewhere, than where it must, to find its exit from the system.

In all other abscesses, whether acute or chronic, internal or external, it is the same. It is even so with common boils. In boils, fibrin is poured out beneath and all around them up to the skin, and condenses into a firm wall, which holds the pus as in a saucer or cup when it forms. Then said wall firmly contracts upon itself, and towards the surface, and thus lifts or forces the matter out through the opening in the skin that suppuration finally brings. But for this impervious wall the smallest boil, or even a pustule on the back of the neck would in every instance take life. It would be much easier for the fluid parts of the pus, and even for the dead and putrifying blood corpuscles, (or, at least, the granules of the latter when the cell wall gives way to release them), to percolate or burrow and dissipate themselves into and through the lymph spaces in every direction, were these spaces not closed by the extravasated and organized fibrin, than to force themselves through the tough skin by the slow process of suppuration. Indeed there would seldom or never be an opening made through the skin by suppuration, if the contents of boils or abscesses could spread at will into the lymph spaces and thus be carried deeper into the system. And in that case death would be certain. For the same reasons, the smallest pustule on the cornea would destroy the entire eye from the pus percolating through the interstices of the coats of the eyeball; thence it would also be carried to the optic nerve and into the brain, and in every such case take life. The vaccine pustule would destroy an entire arm and probably life, but for this wise provision.

The same fact holds also in diphtheria. In every case of deep or superficial ulceration, or abscesses, in this disease, fibrin is extravasated in the same manner and for the same purposes, to guard life in every possible way from the diffusion of accumulating or resulting poisons into deeper and more vital parts or organs. But all the great scientists of the world, now giving attention to these subjects, utterly ignore—let us hope not through ignorance—this greatest of all the preservative principles of nature, in guarding animal life; and here, as elsewhere, they call all the granules and fibrils that the extravasated fibrin *must* organize into before they can coalesce to form the membranous wall of protection, bacteria. Surely a sadly unscientific oversight, by scientific men.

In conclusion, nothing in all nature, nothing in all science, nothing, indeed, in all theology, tells more unerringly of a God, or of a Supreme Intelligence beyond that planned all this, than does this great conservative principle of the extravasation and organization of fibrin in the ways and for the purposes stated. No "clashing of atoms with each other and their environment through countless ages," or even for a few generations, in any form of animal life, ever developed that principle or guided to its perfect working. The *first* boil that ever formed was guided by it to as successful an issue and expulsion of its festering contents as any that form at the present time. And the first animal that was ever injured, to the extent of having suppuration result therefrom, was as thoroughly protected against the spreading of the pus back into its system to take its life, as those injured in the present generation. Therefore, *will* physicians and scientists heed this great principle, reason upon, and take advantage of it, as becomes intelligent men?

# CHAPTER XX.

## ALL CLASSES OF ORGANIZED TISSUES BUT ONE NOURISHED IN EXCESS IN TUBERCULOSIS.

### LETTER TO DR. FORMAD.

DEAR SIR:—I have read your paper in the Philadelphia *Medical Times* of November 18, 1882, with much interest; and am pleased to see that you have entered the lists in so earnest and able a manner, to oppose the hasty and erroneous conclusions of Professor Koch on the cause of tuberculosis. It is to be hoped that you and other earnest workers in this field will be able to stem the torrent of Kochism now flooding the world, and prevent this new fallacy on phthisis from being fastened upon the profession for a generation or more, as others have been before it.

You speak of American "work in pathology" not being "sufficiently recognized and encouraged" here at home. This is, unfortunately, too true, and leads me to ask; why cannot an organization of some kind be effected in this country, by investigators and pathologists, to push "the good, honest work of Americans," and make it felt the world over? A combination of earnest workers could accomplish much in this direction, whereas individuals, working separately and without concert, can do little or nothing, excepting to simply record their observations and deductions for future compilers, and thereby receive little or no benefit to themselves while they live, from their hard work. A community of interests, and the importance of the subject, ought to stimulate them to combine at once to advance American ideas and discoveries.

Having said this much in a general way, will you pardon the liberty I take in offering a few plain, common sense suggestions, which seem to me to simplify and clear up this whole subject of tuberculosis in a most remarkable manner? Assuming in advance that your pardon is granted I will proceed.

*Each and every class of organized tissues of the whole animal body,* viz.: cerebral, nervous, glandular, lymphatic, epithelial, endothelial, connective, serous, osseous, *all, in fact, with barely one exception, are* NOURISHED IN EXCESS *in tuberculosis.*

The one exception is muscular tissue. This emaciates or shrinks to almost nothing in protracted cases of consumption, as you already know. Even the muscles of the heart and the muscular coat of the stomach and intestines are almost equally emaciated and skrunken with the external muscular system. Now why is this? The answer follows:

1st. The excessive emaciation of the muscular tissues is simply due to a waste of albumen in the expectoration, and other catarrhal or mucous discharges of consumptive subjects, which takes away just so much of the only food of the muscles, until these are all, whether internal or external, starved down to almost nothing.

2d. All the other tissues being nourished in excess, is because the waste of albumen leaves a relative excess in the circulation, of the other constituents of the blood that go to nourish these tissues; hence they are all over-fed and grow in excess in consequence.

That the muscles are for some reason starved, you do not need to be told; and that albumen is their only, or almost only food, you must also know, or will concede if you now have doubts of it, when you fully consider all the facts bearing upon the subject. Of the fact of the excessive nutrition and over growth of all the other tissues let us consider a few examples.

The excessive nutrition of cerebral tissue, or of the brain, in tuberculosis, is shown and proved by the large heads and precocious minds of scrofulous children, or the children generally of tubercular parents; it is also equally well shown in the unnaturally acute and active minds of many adult tubercular subjects.

The excessive nutrition of nervous tissues outside of the brain; that is, of the spinal cord and nervous system at large, is shown by the exalted nervous action, or extreme nervousness and restlessness of many of such subjects; also by their neuralgias, over sensitiveness to pain, etc.

The excessive nutrition of the glandular tissues, is shown by the enlargement of the glands everywhere, which is so characteristic of scrofulosis or tuberculosis. The same of the lymphatics.

The excessive nutrition of the epithelial tissues, is shown in the thickening, curving and ridging of the finger and toe nails, which is almost universal in scrofulous and tuberculous subjects; also by their being so prone to warts and other epithelial excrescences. Moreover it is a fact as you know, that many of such subjects cast off an excessive amount of epidermic cells from all, or some portions of the surface of the body, notably from the hands and feet, beyond what those in health do; also that there is a greater or less proliferation of epithelial cells on all the mucous surfaces internally in these subjects; and often a too rapid growth of the hair.

The excessive nutrition of endothelial cells is shown by their proliferation all through the body, of which you give the best evidence I have ever seen, and of which I will soon speak more fully. The same of the over growth of connective tissues, to which I will also give more attention with the above.

The excessive nutrition of the serous tissues is shown by the almost invariable thickening of the pleuræ in consumption, and by the adhesions of some portions of their contiguous surfaces in nearly all cases; also by the thickening in many instances of other serous membranes.

The excessive nutrition of the osseous tissue is shown in the large joints of scrofulous and tuberculous patients, also by bony tumors, internal ossifications, etc. The unnaturally large "shovel teeth," so common in scrofulous people or those of tubercular tendency, shows that even the teeth of such subjects are often nourished in excess, and that the nutriment therefore must be left in excess in the blood from some cause.

Moreover the lungs themselves, or their constituent tissues, are nourished in excess in phthisis. You speak of the "irregular thickenings" of the walls of the air-cells, therein, which is true; and we all know of the proliferation and much too rapid desquamation of epithelial cells, within the alveoli, to block up many of them. Well, it requires no argument to prove that there must be, in both of these instances, an excess of nutriment to cause these excessive growths. Nothing can grow in excess without an excess of materials on which to feed.

And so we might go on and descend into greater details on all these points, and introduce new ones, but this can not be necessary. We will, therefore, return to the subject of a proliferation of endothelial and connective tissue cells.

You speak of the lymph spaces between the bundles of connective tissue fibrils, everywhere throughout the body, being narrower both in scrofulous subjects and in scrofulously inclined animals, than in the non-scrofulous. Also of "the filling of the lymph spaces with desquamated and germinating endothelial cells," or "free, round and irregular cells," in larger quantity in the scrofulous than in the non-scrofulous, which "are frequently seen to block up the lymph spaces."

Carrying out the idea of all systems of tissues being nourished in excess in tuberculosis, excepting the muscular, and applying the facts as they exist, we see that the reason of the greater number of cells in the lymph spaces is a proliferation and too rapid desquamation of the endothelial and, perhaps, some other cells, into those spaces, to block them up, the same as we see the air cells of the lungs in consumptives more or less blocked up by a proliferation and casting loose into them of the epithelial cells, and because their food is also left in excess.

The *narrower* lymph spaces in scrofulous people than in the non-scrofulous is owing to an excessive growth and consequent thickening of the connective tissue fibrils in the former, from the same general cause; which thickening must necessarily crowd much upon those spaces and narrow them. This applies to consumptive subjects, or those who are inclined that way from losing albumen through some one or more of the mucous membranes.

What, now, of the *naturally* narrower lymph spaces you point out in healthy rabbits and guinea pigs, as scrofulously inclined animals (though not from losing albumen), than is found in the cat, dog, etc., as non-scrofulous animals? Please consider the following points in connection therewith.

Vegetable food does not contain as much albumen as does animal food; but it does contain more of other ingredients required to nourish other tissues than the muscular. Hence the rabbit and guinea pig, as herbivorous animals, would have those other tissues, or many of them, nourished more by vegetable food; and hence the larger or thicker connective tissue fibrils, and the smaller lymph spaces between them, in those animals, than in the cat or dog, as carnivorous or omnivorous animals.

If the latter, however, are fed with too much vegetable and too little animal food, they get too little albumen and too much of other food constituents for their nature, which changes them to a similar condition of herbivorous animals, with reference to the connective tissue bundles; that is, the fibrils of these receive too much nourishment, the same as if albumen were lost, and are thickened thereby, which crowds upon and narrows the spaces between them as just stated. And the latter being now filled with endothelial cells is because these receive an excess of nutrition and proliferate in consequence, as in cases of actual scrofulosis, which has already been sufficiently explained.

Again, under emaciation from loss of albumen, the lymph spaces are narrowed more or less by the general shrinkage of the muscular tissues, which aids in lessening the size of the interspaces between the fibrils of all tissues where there are muscles. And this also would account, in part at least, for the lessening of said spaces in animals that are gradually starved, but not losing albumen. They do not get enough of it, or of any other food, and this brings up some of the conditions that a loss of albumen would entail.

Should it appear to you that there is a glaring omission in this summing up, viz., in not including the so-called adipose tissues, the answer is easy: I do not regard the simple natural deposit of fatty matters in various parts of the body as organized tissue. But there is much more to consider on this point.

Active nutrition in the muscular system gives warmth to the body, but under a waste of albumen there is not active nutrition in the muscles, hence a lack of heat. Then, a too watery blood, as in all cases where albumen is lost, in itself induces cold, or allows of the blood being easily chilled. All this demands a more rapid consuming of the fatty matters of the blood than is natural, to keep up the heat, and this, together with the hectic fever, burns up the fats, so there are none left for deposit, excepting such as may be unnaturally deposited in the liver, etc., to cause the so-called fatty degenerations thereof. And hence the entire absence of *natural* accumulations of fat in such cases.

Giving a little attention now to the classified constituents of the blood, by name, and as left in excess by a loss of albumen, we find the following:

The excess of water thus left causes the too watery blood of all consumptives; and in consequence thereof, leads to the diureses, night sweats, and dropsies of such subjects.

The excess of blood corpuscles causes all their *primary* hæmorrhages; and, later, all their tubercular corpuscles, by the former, or the red blood corpuscles being decolorized into the latter through the too watery serum, or by their congestion and decolorization through the inflammation which they excite. You say so truly and positively: "We can certainly not have the parasites more pernicious than the living cells of our own body prove to be in the case of tuberculosis;" and will see how strongly the above fact as to the disposition that is made of our blood corpuscles, when brought into excess, corroborates your assertion.

The excess of fibrin causes the thickening of some or all the serous membranes, adhesions of the pleuræ, etc.

The excess of fatty matters causes the fatty livers, and other fatty degenerations in consumption; also, in connection with some of the salt phosphates, their excess over nourishes the brain and nervous system, causing the precocious minds, restlessness, nervousness, etc. And an unnaturally large portion thereof is burned to keep up the required heat in such cases, as just shown.

The excess of salts causes the enlarged joints and large bones of many such subjects, bony tumors, internal ossifications, calcareous concretions, chalky deposits, etc.

And the excess of some one or more of these, or of some vital compounds of the blood that have not yet been classified, is what causes the excessive development of the glands and other tissues not above accounted for.

Thus, as you will see, this whole question of tuberculosis and scrofulosis, and every pathological or abnormal physiological, and abnormal anatomical development in connection therewith, is one of a waste of one of the constituents of the blood, by catarrhal disease of the mucous membranes (or a deficiency of that constituent through poor or deficient feeding); and the leaving thereby of all the other constituents in a relative excess in the circulation. Or the loss of the one constituent starves one system of tissues and leaves an excess of all the other constituents to overgrow every other class of tissues. What else could so well account for it all?

Deficient feeding, or poor food, both cause a too watery blood, which always decolorizes the red corpuscles too rapidly, and changes them into leucocytes, or tubercular corpuscles; and this was why you had the final development of tubercles in all or many animals so treated, without their *losing* albumen to bring it about. Poor people living on stale vegetables or other poor food may and do have tubercles developed in the same way. It is a question of deficient supply of albumen in these cases, instead of a loss of it, that brings similar results.

This brings me to speak upon another point to which you allude. You say: "In all scrofulous beings all the organs supposed to be concerned in the production of white blood corpuscles were disproportionately large, in relation to the size of the animals." And then incidentally you refer to the spleen and some other glands as being the manufacturing organs of said corpuscles.

In one sense the glandular organs named do make white blood corpuscles, but out of what? They simply decolorize the old and worn-out, or otherwise useless red blood corpuscles, into white blood corpuscles, then disintegrate them to get them out of the circulation to avoid their congesting any part or organ, or poisoning the system through putridity, as they would if not rapidly disintegrated and excreted. And herewith ends the tale of the production of white blood corpuscles by said organs.

Nature's exact adaptation of means to ends, her accuracy and certainty in all things, when not thwarted by disease, the absolute and constant dependence of life upon the proper performance of the functions of the blood corpuscles, and the rapidity with which they must be made to keep up their full supply—all render it clear and certain that the mesenteric glands make the red corpuscles of the blood out of the *pure, fresh chyle,* direct from the *first* and *best* efforts of digestion, and brought to them by over *four millions* of lacteal vessels; and not from impure blood in the liver, or from a small supply of it in the spleen or other glands. And when they get old or become useless, they are decolorized by the spleen and liver and perhaps other glands, as above asserted. Hence the greater number of white blood corpuscles observed in the splenic and hepatic veins than in other parts.

Now, another point. Nature being always consistent with herself, and doing things on exact principles, we see that when the blood corpuscles are left in excess by a loss of albumen, she has more work to do in decolorizing and breaking down the *surplus* corpuscles than in health. Therefore she enlarges the spleen and other glands that do this work; and finds the food to so enlarge them in the excess of gland-making material that is left by the same cause. This larger development enables said glands to do much of this extra work, and thus ensures its being done, to avoid extensive congestions by what would be the too rapidly accumulating corpuscles, if they were not destroyed faster than in health. As it is, even then, many of them are not entirely destroyed, but changed into leucocytes and tubercular corpuscles.

Why not, then, take the universally enlarged glands of scrofulous animals as the "anatomical anomaly" or "anatomical criterion," by which to distinguish them from the non-scrofulous, as to take the narrower lymph spaces for such criterion? Or why not take the larger and more active brains of tubercular human subjects, or the enlarged joints, proliferating epithelial cells, thickened serous membranes, etc., as the distinguishing anatomical characteristic, instead of confining it to the lymph spaces narrowed and filled with "free, round and irregular cells"?

When there is a too rapid growth of cells to nourish any tissue in excess, there is also a too rapid desquamation of the same cells, when they get old and worn out, which fill and clog the lymph spaces, air cells, or other small cavities, as you found them in the former. Were they not disposed of, when old, in the same ratio of rapidity as made, in the first instance, or nearly so, excrescences or tumors would be grown everywhere that such cells proliferate.

The red marrow of the bones, to which you incidentally allude, is from a portion of the excess of red corpuscles, or from the hæmatin dissolved out of said excess, or both, being held in the marrow and coloring it too highly.

Another point ought to be touched upon. You say: "No inflammation, no tuberculosis." Yellow tubercles are generally preceded by inflammation, but gray or *semi-transparent* tubercles are not, and why? In the last stage of phthisis the blood becomes so watery that many of its red corpuscles are decolorized to entire transparency on their rounds in the circulation, then congested in the capillaries of a part and make a "knot," or transparent tubercle, without preceding inflammation. In yellow tubercles, on the contrary, there is congestion of a part by a surplus of red corpuscles, which excites inflammation, and this decolorizes them into yellow tubercles.

Now, in regard to the bacteria theory as the cause of tubercles. You will be enabled to see from all that precedes, even more clearly, perhaps, than before, how shallow and utterly worthless that theory is to explain it all; and how absurd the claim of infectiousness by bacteria. What a terrible wrong, too, that error is going to work against many consumptives, and which, as you say, has already been begun, by some of them being more or less shunned and neglected, for fear of contagiousness by parasites.

"The therapeutics of phthisis also must be governed in a great measure by the view taken of the etiology of the disease," you say. Very true, and if the views herein presented as to the cause and nature of consumption are correct, you will see how entirely its treatment must be changed from prevailing methods. In other words, that everything in treatment, whether medicinal or topical, in the least irritating to the mucous membranes, must be avoided; and only *curative* measures that will *heal* the irritations and abrasions of those surfaces should be employed, and thereby *stop the waste of albumen*, which is the immediate cause, when *all* effects must inevitably cease.

Again, and in conclusion, it will not have escaped your attention, that the foregoing facts, and deductions therefrom, will not only correct many errors of pathology, but, what is of almost equal value, will serve to correct many errors in physiology as well, besides furnishing us many new truths therein, and at the same time greatly broaden our views on both these important branches of scientific medicine.

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## CHAPTER XXI.

### THE STAGES OF CONSUMPTION.

There are two theories generally put forth by authors as to the proper division of the different stages of phthisis. One of these is, to divide the whole course of the disease into two stages; the other, and more generally accepted, into three. The first stage in the former view embraces the time from the beginning of the catarrhal period to the primary deposit of tubercles, and even through this period until they begin to suppurate; then making of the second stage all of that time from the beginning of suppuration in the tubercles to the close of the case. The other view is to divide the time into three stages: first, from the beginning of the catarrhal period to the commencement of the deposit, or formation, of tubercles; second, from the beginning of the organization of tubercles, at least in mass, to the commencement of suppuration; and third, from the commencement of suppuration in them till death.

That classification of the stages of consumption, however, which divides them into three instead of two, as by some authors, as will be seen, is manifestly the most proper. Under a division into three stages we have the purely catarrhal stage of phthisis, running all the way from a few weeks only, in some cases, to many years in others wherein the disease is yet confined to some one or more of the mucous membranes, and the catarrhal or mucous discharges therefrom, with the debility, irritations and disturbances that flow directly from that cause. Next we have the stage of deposit of tubercle, that is, that period embraced between the times of the *beginning* of their deposit and the commencement of their suppuration as just said, or the breaking down of the tissues in which they become embedded. This may also extend from a few weeks only, to years, though it is usually of shorter duration than the catarrhal stage. Third and lastly, we have the suppurative stage extending from the time suppuration begins, in or around the tubercle in mass, to the end of life. As a rule, this is the shortest of the three stages, though we have, in various cases, every conceivable deviation from a uniform progress of the disease; and in this last stage, as will be understood, there is extensive destruction of one or both lungs, simply from the breaking down of the tuberculous masses, carrying away all lung or other tissue involved in them. In this stage we also frequently find the mesenteric glands of the intestines partly or wholly destroyed by the deposit of tubercles in them and their consequent ulceration.

The various stages, of course, run almost imperceptibly into each other; still in theory, at least, as will be seen, there is a distinct line of demarkation between them. The catarrhal stage, or action, runs into and all the way through the other stages, wasting albumen more and more freely as the disease progresses; but it becomes mostly or wholly concentrated in the lungs in the second and third stages instead of being scattered upon other mucous surfaces, as is so often the case during the first stage. The stage of deposit also runs into the suppurative stage; that is, the deposit of tubercle goes on more and more rapidly as the disease progresses, and albumen is more freely wasted, until death closes the scene. It is only in this way that the substance of the lungs is more rapidly destroyed towards the close of life than before. Often every part of lung tissue becomes filled with the rapidly increasing tuberculous matter, decolorized blood corpuscles, etc., and gives way in every direction under the accumulating mass.

# CHAPTER XXII.

## PNEUMONIA AND ITS RELATION TO PHTHISIS.

It is a well known fact that phthisis immediately follows, or dates its beginning, soon after an attack of pneumonia, and, in many cases, apparently, as a more or less direct result of it, where the latter does not prove fatal at the time. What, then, are the relations between the two diseases, and why does the latter predispose to the former? These are important questions, and, if it be possible, should be fully and satisfactorily settled. Let us, therefore, try to solve them.

We have seen by a preceding quotation from Copland's Medical Dictionary, describing the expectoration from the lungs in diseases thereof, that: "when it is viscid, opaque, somewhat frothy and thick, it is usually brought up with much cough, contains *much more albumen*, and adheres closely to that previously expectorated and to the sides of the vessel." Physicians of experience do not need to be told how accurately this describes the expectoration in the early stages of pneumonia. We see, then, that there must be a large waste of albumen from the blood (according to facts already laid down), in pneumonia, and that all the other constituents of the blood must be left in a correspondingly large relative excess in the blood-vessels, in consequence of such waste of one of its elements.

Consider, also, other facts. The five ounces and over of blood corpuscles left in a relative excess in the circulation for every ounce of albumen lost in cases of pneumonia, provides the means, that is, the surplus blood corpuscles with which one or both lungs are more or less extensively congested in this disease. That excess, moreover, furnishes the blood that is thrown off in the rust-colored sputa of all these cases, and that also which is discharged in actual hæmorrhages in some of them, both of these methods relieving the congestion of the lungs by so much blood as is discharged in that way. In case the congestion goes on to an abscess, then the blood corpuscles so congested are decolorized by the inflammation, and on the bursting of the abscess are discharged as pus corpuscles and thus expelled from the system. Of course, the intense fever, dyspepsia and danger are in consequence of the congestion and inflammation of so vital an organ, and if the case results in an abscess the symptoms and danger are all greatly increased.

The relative excess of water, left by the loss of albumen, furnishes the fluid for the night sweats that very commonly arise in pneumonia, after the inflammatory period subsides; and, other things being equal, their severity is measured by the amount of albumen lost. It is the same with the dropsy that sometimes follows severe cases of pneumonia, the excess of water providing the fluid for that, as well as for the night sweats.

There is always a large excess of fibrin in the blood in pneumonia; and where considerable of this is not thrown off in the thick, tough expectoration of the disease, as it commonly is, and there found by the microscope, then it goes on increasing in the blood, until the excess gets to be such that it is in part, at least, thrown out on the surface of the pleura, where it excites inflammation, when we have the complication of pleurisy with the pneumonia, or pleuro-pneumonia, as it is called. Considerable of the excess of fibrin is also used, or gotten rid of from the circulation, by being secreted into and around the congested mass, where it organizes into the dense impervious wall of the resulting abscess, if the case comes to that, and thus prevents the spread of the pus throughout the entire lung to wholly destroy it. The excess of the salts is, more or less of it, discharging through the kidneys, in the urine, through the bowels, and also some of it, no doubt, through the lungs in the expectoration, especially when the sputa tastes salty or brackish. When not so discharged, but held in the circulation, or deposited in the congested part, these salts must necessarily add to the severity of the disease, because of their irritating qualities.

The fatty matters left in the excess are, more or less of them, also often discharged through the bowels, the kidneys, and in the expectoration, but when not so disposed of, they, too, must disturb the system and aggravate the disease in their own characteristic way.

Now all this, as will readily be seen, is in direct line as far as it goes with the beginning and development of phthisis, excepting that it is acute instead of chronic action; and if the pneumonia had been so severe as to greatly weaken the lungs, beyond their power of full recovery, we can see that the waste of albumen must go on through them, in a chronic way, and thus more or less speedily lead to consumption. Or, if this is not conceded, the following must certainly be acknowledged, viz.: That pneumonia very commonly occurs in those who are already more or less predisposed to phthisis, but whose vitality had thus far been able to hold their taint in subjection. Let such an one, then, have an attack of the former disease, to greatly weaken his lungs, and life-force as well, the latter can no longer resist this taint, and it must then be aroused to go on in its legitimate work. Or, again, in those who have had a chronic skin disease suppressed, but with a vital force of sufficient strength to hold that in a dormant condition, if they are attacked with pneumonia, and both life and lungs much weakened, they can no longer resist their taint, or that humor, and it is aroused, goes to work on the mucous membrane of the lungs, leads directly on to catarrhal secretions and the waste of albumen, and there and thus finishes up its work. So we see what are and must be the relations existing between pneumonia and phthisis.

In conclusion of this matter, the author has no hesitation in saying that, under these facts and the *proper* treatment of the disease in accordance therewith, instead of the death rate of pneumonia reaching fifty per cent. or more, as it often does, such rate can be reduced below ten, yes, often below five per cent., where there is no delay in administering the right treatment from the beginning. This estimate is based upon an experience of over thirty years of practice, in which pneumonia has borne its usual proportion, and in which actual results in its treatment warrant the assertion. Therefore, the author is not indulging in theorizing here any more than in the plainest and best proved facts presented in this volume.

# CHAPTER XXIII.

## OTHER SOURCES OF PHTHISIS.

There are many other sources of phthisis, besides direct inheritance. Suppressed skin eruptions, as in diseases previously named, and among the most prolific of such sources is the suppression of other forms of disease from various other organs. To illustrate: Of the great numbers of women daily treated locally for diseases peculiar to their sex, a large proportion soon begin, or within a year or two after the removal of their primary disease, to manifest nasal or bronchial catarrh, chronic sore throat, dry cough, pains in the chest or other pulmonary symptoms, either one or all of which, sooner or later, develop into phthisis.

In no case is the removal of a female disease by local treatment, a curative process. The chief cause of such complaints is almost invariably a scrofulous or tuberculous taint inherited from one or both parents; or it may be an inherited humor of the blood, as that of psoriasis, herpes, eczema, and the like. During the vigor of childhood and youth such inherited taint or humor, may be, and often is, held entirely dormant in the system, until, through depressing causes, the vitality becomes so much exhausted or weakened that it can no longer hold the taint in check, when it becomes aroused and locates upon the mucous membrane of the female organs in these cases, with the various results that are too well known to require a specific description here. How is it possible, then, to suppose that *local* treatment in these cases, can cure; that is, eradicate a cause that had its beginning in the preceding generation, perhaps dates back several generations in its origin, and permeates the entire constitution of the patient? It is simply absurd. Such treatment can result only in disaster to the patient.

All that is accomplished in such cases by local treatment, if the primary disease be removed, is simply this: Through the violent irritations of cauterization, the harsh or stimulating injections and the like, a reaction is finally aroused in these organs, which subdues the further action of the cause or taint, in that locality, or drives it out when not being cured, it must go elsewhere; and very commonly it is the lungs to which it is transferred, there to sooner or later begin its legitimate work of wasting albumen and producing tubercles. The author has seen large numbers of such cases, and in all instances where he has been consulted in time to save the patient from death, and control the lung disease, the whole morbid condition, or the cause of it, has been translated or driven back to the female organs, there to manifest itself in the same way, and generally with the precise symptoms, as in the first instance. Therefore, in all this we have the positive, yes, double proof of what is here claimed. So, no part of the argument or assertions in the foregoing, is theory, but all is actual fact demonstated by hundreds of cases; and not only that, but it may be proved over and over again by any physician who will rightly treat and cure the lung cases, that so commonly follow in the wake of suppressed female diseases.

Another fruitful source of phthisis is in suppressed stomach diseases. The majority of confirmed dyspeptics ultimately die of consumption. Through harsh and irritating medicines, alcoholic stimulants, etc., taken into the stomach, reaction is finally established in that organ, the disease in part or wholly driven therefrom and to the lungs to there finish up in tubercles. Here, too, the author has seen many cases to prove this fact, and in many cases has seen the dyspepsia return with all its primary symptoms, if, and when the lungs were cured of their disease.

Again, consumption may, and often does, have its origin in suppressed chronic diarrhœa, suppressed hemorrhoids, suppressed fistula in ano, etc. A case in point of suppressed hemorrhoids will be given. A year ago I was called out of the city to see a gentleman, suffering from disease of the lungs. Upon examination by percussion and ausculation, the lower third of the right lung was found almost wholly congested and quite painful; there had been night sweats, often very profuse, for two months; he was so debilitated as to be confined entirely to his house, with not a few other attendant symptoms common to such cases. He was about fifty years of age, and had never before had even the slightest threatening of any such symptoms. Upon thorough inquiry as to what might have been the cause of so unexpected an attack, it was learned that a year before he had made a pilgrimage to a specialist in Cincinnati to be treated for hemorrhoids. The treatment consisted in piercing the tumors with needles and then charging them with strong currents of electricity. The tumors were thus speedily removed, and the cause driven out of those parts; only, however, to be developed in the lungs upon the first favoring opportuninity that occurred threafter. This man must inevitably have died of consumption in a year at most, had the case not been reached and controlled as it was. He had had night sweats for three or four months, with other serious symptoms, but is now fully restored.

Also, phthisis not unfrequently has its origin in suppressed inflammation of the eyes, both of the acute and chronic form, as I have seen in numerous cases; while the suppression of common boils will often be followed with consumption of the lungs or bowels, or serious threatenings of it, as has also been seen in many cases. In all these instances it is simply the suppression of a taint in its action on a non-vital organ and driving it in on a vital organ.

In conclusion of this chapter, it may be asked: "Must, then, all these other diseases, herein named, be left without treatment and allowed to develop into their worst phases in their original seat, for fear of being driven to the lungs?" By no means. Their *local* treatment *must be* wholly avoided, and they treated by internal medication upon the tongue with the appropriate and exactly indicated remedies, to eradicate the taint from the system that generally causes them, and so not only thoroughly cure the primary affections, in all curable cases, but avoid all risk of suppressing them, to be followed by much more formidable and incurable diseases. The physician can be guilty of nothing more criminal in his profession than to treat any disease locally and thereby suppress it.

## CHAPTER XXIV.

## RATIONAL AND SCIENTIFIC GROUND FOR HOPE THAT CONSUMPTION CAN BE CURED.

I shall not throw distrust upon what I feel to be the great truths embodied in the preceding pages, by coupling with them an indiscriminate claim that consumption in any and all its forms and stages can be cured. Nevertheless, I am able, as I candidly and conscientiously believe, to furnish a rational ground for hope in the cure of this terrible scourge, in the earlier stages, of a large majority of cases; and a hope, too, that has never hitherto been presented to the world, and never before, I believe, even casually considered by the profession. It is as follows:

If the cause of consumption is the loss of albumen from the blood through irritated and abraded mucous membranes, as must be conceded on the evidence presented to be at least highly probable, then the curing of the cause, that is, properly healing all the mucous surfaces that are diseased, must of necessity put a stop to the further production of tubercles and the whole category of attending conditions and sufferings. Of this there can be no reasonable question, provided always, of course, that the real cause has been fathomed and is the loss of albumen as described.

This brings us to consider the curability of the mucous membranes, that is, the facility, rapidity, and certainty with which they may be thoroughly healed and thus stop the loss of albumen. And of all this being susceptible of speedy accomplishment, in the early stages of these cases, there would, fortunately, appear to be no serious ground to question, if well settled physiological facts bearing upon these points may be relied upon. Carpenter says of the healing of mucous membranes, when injured or diseased:

"Their regeneration, after loss of substance by disease or injury, takes place with great rapidity."

Furthermore, it was shown, when describing the mucous membranes, that the retention of the albumen in its proper place in the interstices of these and the deeper tissues, for nutritious purposes, was mostly, if not wholly, due to the superficial layer of these membranes, the epithelium, or that which corresponds to the scarf skin of the surface; and that this delicate covering was made up wholly of minute flattened cells, like the scales of a fish, lying upon each other, two or three thicknesses in depth. Of the regeneration of this, the same author (Carpenter) says:

"The epithelium of most parts of the surface of mucous membranes, appears to be frequently exuviated and renewed."

Other authors state that of all the cell structures of the animal body, the epithelial cells of the mucous membranes are reproduced with as great or greater rapidity than those of any of the other tissues. Such, indeed, must be the fact, if Gray's statement before quoted is true, namely:

"As a general rule, the more active the function of an organ is, the closer is its capillary net and the larger its supply of blood; the net-work being very narrow in all growing parts, in the glands, and in the mucous membranes."

The constant reproduction of the epithelial cells, by or upon the basement membrane of the mucous surfaces, to take the place of those that are as constantly going to decay (having gone through their natural life and usefulness) and being cast off as worn-out matter, is an imperative necessity to the continued existence of animal life; and this necessity Nature has met and ensured in the provision that more blood shall flow through the mucous membranes, than most other parts, to furnish the material out of which the cells in question are grown. Besides this she has further provided that in case of irritation from any cause arising in these membranes, a still greater quantity of blood than natural shall flow there, greatly distending the vessels, thus doubly ensuring the presence of an ample supply of material, with which all damage or injuries may be repaired, and the further waste of albumen stopped.

In these indisputable physiological *facts*, we have the proof upon which to found a rational and even a scientific hope that consumption, in the first stages of a majority, and possibly a large majority of those directly and certainly threatened with it, may be cured. That there are some naturally of such feeble vitality and so little tenacity of life, having no reserve forces to protect them against anything serious that may assail them, and that there are others of such evil and perverse habits, or so reckless of consequences that they can not be cured, is beyond question: but these are certainly a minority, and they ought not to dispel the great hope there is for the majority to be cured during any period of the truly catarrhal stage of their malady, before the commencement of the deposit of tubercles. Hence it is my sincere belief that very many can be cured after the commencement of the deposit of tubercles, if not in large masses, and before such inflammation is excreted in the tissues around them as must necessarily end in suppuration and considerable destruction of lung substance.

Before the deposit of tubercle all that requires to be done, it must be remembered, is to heal the mucous membranes by judicious treatment, and thus restore them to their normal condition. This necessarily stops the further waste of albumen, and if the theory is true, puts an end at once to the possibility of any tubercular matter being produced, to be deposited to destroy the lungs. It would also end the cough and expectoration, the rapidly progressing emaciation, the debility, the night sweats, and every other serious symptom of the case, and leave the patient with no other prospect than to get well. At the same time while the facts given warrant our taking so hopeful a view of the curability of consumption in its early stages, it should be understood that it is not assumed to be a mere holiday task to heal the mucous membranes. With many it appears to be very speedily accomplished under the administration of the proper remedies; while with many others, a very large majority, in fact, of those who have inherited the taint of, or tendancy to, consumption, it remains a long, careful and discriminating treatment to heal those surfaces; and especially so when we desire to heal them so effectually that their taint will not become aroused and set to work again upon the first severe cold, or other trying ordeal through which they may be compelled to pass.

Even were the loss of albumen not the cause of tubercle, it must be conceded by all, that stopping the waste of so highly nutritious and necessary an element of the blood for the nutrition of most of the soft tissues, as this has been shown to be, would, nevertheless, be of the utmost importance, to arrest this cause of emaciation and debility, and would, let its cause be what it may, leave the patient with so much more strength and vigor to combat the progress of tubercle.

After the production and deposit of tubercle, there are two most important purposes to be accomplished before the patient can be cured, namely: the mucous membranes must not only be healed, but the tubercle, or tubercles, must be absorbed before health can be restored. Here is a double and most difficult task to perform, first because the vital forces are almost always much more exhausted after than at any time before the deposit of tubercle, making it all the more difficult to arouse sufficient energy in the system to stay so formidable a disease; and secondly, becuuse we have so much dead and malignant matter occupying the delicate tissues of the most vital organs, constantly irritating them to excite inflammation, and which must be absorbed before such a thing can be thought of as restoring health to the sufferer.

But here again philosophy comes to our rescue and furnishes reliable ground for hope in the cure of many of this class of cases, which we can not find in any other direction. For instance, with morbid growths, as well as with morbid deposits, where the growth or accumulation has not assumed too great proportions, or destroyed the parts in which embedded, cutting off their nutrition, or stopping the production of the material on which they depend for their development, will necessarily arrest the further increase of the morbid mass, and then the absorbents around and in the mass, which are almost universally active under such circumstances, will set to work vigorously and pick up and carry off, by minute particles, the accumulation, until the whole is removed. These facts are too well known to require proof. And they apply just as fully and forcibly to tubercles, as to any other kind of morbid matter or growth.

Therefore, it is again repeated, if the loss of albumen through diseased mucous membranes is the cause of their existence, or production, the stoppage of such loss by healing those membranes, must necessarily cut off the further production of tuberculous matter in every such case, so the tubercles could not by any possibility grow larger; when the absorbents would continue their natural activity, even without any extraneous aid, and remove all that had been deposited, provided its mass was not so great as to unavoidably excite inflammation, suppuration and destruction of the parts in which embedded, before they can complete their beneficent work. This encouraging outlook for such patients is based solely upon the unaided natural activity of the absorbents, under the circumstances given; but when the belief is stated, that judicious medical treatment may be made to greatly stimulate and increase the activity of the absorbents in their work of taking up and carrying off the accumulated matter of tubercle; and also that such treatment may be made to keep down inflammation around the tubercle much longer than it would be if nothing was done in that direction, thus giving so much more time to accomplish the object desired, how much may we not hope for being consummated in the cases of this class, which have been hitherto looked upon so hopelessly? Certainly, we should not despair of the curability of consumption, under such a showing, even in such patients. My own experience would fully warrant my assuming that a majority of them, to say the least, with due care, and with caution and obedience on their part, may be saved.

Of the third stage of consumption, little, if any, hope is to entertained of its cure, and especially if a tuberculous mass of any considerable size has suppurated, and broken down a corresponding amount of lung substance, in either lung. The breaking down of several small tubercles, even if quite small, but destroying and carrying away lung tissue, is equally hopeless. It is not, however, regarded as impossible that some patients may be cured wherein there has been a softening of one or two small tubercles, and the leaving of small cavities in the lungs, but no certain reliance can be placed upon permanent relief being given in such cases.

Many cases of consumption, where symptoms were unmistakable and of great severity, both in the first and second stages, might be given as permanently cured under the principles laid down in the preceding pages; but it can not be necessary to take time and space in their rehearsal, to enforce the argument presented, so fully has this been already sustained by proof from the best authorities, or from reliable observations that are familiar to all.

It is thought that facts and principles like those given, that apply equally to the treatment of all cases, and which afford such reliable grounds for hope, that nearly all can be cured if taken in time, will be of much more interest and importance to all sufferers, than any mere detail of symptoms which might or might not correspond with these cases. What the world needs to know more than all else in this connection is, the cause of consumption, so as to avoid the disease where possible; and whether it can be cured, or what reason there is to hope for this in any of its stages, when it is actually upon one. And it would seem that both of these questions had now been pretty fully and satisfactorily answered.

## CHAPTER XXV.

## HARSH AND IRRITATING MEDICINES MUST BE AVOIDED.

One thing imperatively demanded, if we wish to cure consumption, is, that all harsh, strong or irritating medicines must be scrupulously avoided. The necessity for this will be seen from the statement of a few plain, simple facts. It has already been shown that the slightest irritation of a mucous membrane causes a secretion and waste through it of albumen. It will be remembered that Lehmann said:

"Daily experience shows how rapidly the number of the so-called mucous corpuscles increases with the *slightest* irritation of the mucous membranes; and we know from the researches of Julius Vogel, that an irritated mucous membrane secretes not only such corpuscles, but also an *albuminous*, coagulable matter, however much it may be disposed to form transudations and exudations."

Even the comparatively slight mechanical irrritation of the throat with a feather, causes its mucous membrane to secrete an abnormal quantity of mucus, which is in itself albuminous, and with it also a waste of albumen in a more or less pure state, as proved by the above quotation. Then what may not be the injurious effects of "burning out" the abnormally and often excessively sensitive throat of a consumptive, with some violent cautery, like the nitrate of silver, or of gargling it daily with some harsh, irritating medicinal agents, as is often done? By these various means, it is an actual and undeniable fact that ounces of albumen, either in the mucus, or that which is more or less pure, are often wasted every twenty-four hours, in addition to that which is lost through the specific effect of the patient's disease, and which is the sole primary cause of all his troubles. How absurd, then, to add, in this or any other way, to the cause of the existing evils.

Again, no limit can be placed upon the great injury done a consumptive by strong, harsh, or irritating medicines which may be taken into his stomach. All medicines without exception which may be classed as irritative in their results, are especially so upon the mucous membranes. Hence the large number that are emetic, cathartic, diuretic, expectorant, etc., in their action, must be avoided. Their effects are, indeed, so violent upon the mucous membranes that they will often, when taken into the system, injure and cause a loss of albumen, through a remote membrane, with which they do not come in direct contact at all, as will be seen in the following from that most reliable author, Watson. He says, in speaking of albumen in the urine:

"Albumen has also been detected in the urine under that general state of irritation produced occasionally by mercury, or by a blister to the skin."

Here we see that even a blister applied to the surface of the body, will cause a loss of albumen through the kidneys, either from the trifling amount of its material that is absorbed into the blood, or by the reflex action of its irritation through the nervous system. And it should be borne in mind that this result is, or may be, brought about when the kidneys are themselves healthy. What may not be the effect, then, upon the highly sensitive and irritated lungs of a consumptive, by introducing harsh and powerful medicines into his stomach? The results must be serious in most, if not all, cases. Indeed, we *know* they are, from what is so well known of the effects of expectorants. Any of these taken into the stomach very frequently, cause a profuse secretion and expectoration of mucus from the lungs. Dunglison says of expectorants:

"There is probably no such thing as a *direct* expectorant. They all act through the system, or by impressions made on parts at a distance, which, through the medium of general, continuous, or contiguous sympathy, excite the secretory vessels of the air-passages into action."

How responsive, then, are the lungs in health, to such agents, which directly irritate other and remote parts, and how much more so must be lungs already diseased! And when we reflect that the sole direct cause of the consumptive's disease is a loss of albumen from the blood through some one or more tracts of mucous membrane, but more conspicuously that of the lungs; that all the mucus that the expectorants cause to flow is only a loss of so much more albumen, and that with every abnormal dicharge of mucus there is a waste of albumen, often in large amount, in its more or less pure state; we see what irritating medicines must necessarily do in hastening the sufferer to his grave.

And in the foregoing no account is taken of the quantity of albumen caused to be lost through the direct effects of the irritants upon the mucous membranes of the stomach and intestinal canal generally; nor the great danger of hastening the inflammation and suppuration of tubercles, after they are deposited by the expectorants, exciting a greatly increased flow of blood to the lungs, to furnish the material for the increased mucus, and which must of necessity cause active congestion in the obstructed vessels about every tubercle.

### INHALING REMEDIES.

For the reasons just given, no medicines of any kind, name, or nature, should ever be inhaled into the lungs. The lungs were made to inhale air and nothing else. And he who violates this organic principle of Nature will surely be made to pay the penalty. Anything taken into the lungs besides air, and especially the vapor of irritating drugs inhaled for the purpose of causing a free expectoration, must waste albumen, the same as expectorants, and just to the extent that the expectoration is increased thereby, and here again add just so much to the existing cause of all the patient's suffering and danger. The risks of exciting congestion and inflammation would be just as great, or greater, than with expectorants.

Again it is repeated, were the cause of consumption not a loss of albumen, so much of it as is wasted by administering harsh and powerful medicines, as expectorants, by inhalation or otherwise, robs the system of its best material for keeping up its strength and activity, hence debility and exhaustion must necessarily all the sooner appear and progress with greater rapidity. So look upon and question causes as we may, there can not be two opinions among those who know anything of the great importance of albumen to animal life, that the waste of any considerable portion of it from the blood daily, no matter how brought about, must lead to most serious consequences.

Secondly. The excesss of the other constituents left by the loss of albumen, then becomes *foreign matter*, which is either found depositing in living tissues, creating more or less irritation or disturbance therein, or causing actual disease; or it is expelled from the system entire through every outlet that the powers of life can command. A portion of the excess of some of the constituents is sometimes used up by an increased nutrition of parts or organs, tha is, by abnormal enlargements or morbid growths, as is often manifested by the enlarged glands, and other growths or excrescences, in scrofulous subjects and in the early stages of consumption.

# THE THERAPEUTICS

OF

# TUBERCULOUS AFFECTIONS.

BY

H. C. ALLEN, M. D.

# IS CONSUMPTION CONTAGIOUS?

Koch's discovery of bacilli in the sputa of tuberculous persons has been confirmed by many observers, but that they are the cause of tuberculosis, as asserted by Koch, is not generally believed. Spina, of Vienna, with Leaming, Formad, and many others in this country, while agreeing in always finding bacilli in the sputa, deny that they are always found in the tuberculous organs of man. Spina never found them in tubercles to which the air had no access; and in this agreeing with Gregg that "the bacilli of tuberculosis are the result, not the cause, of the disease." Another decade may number the bacillus, as a cause of tuberculosis, among the discarded theories and confirm the fibrin theory of Gregg. So much has been written in harmony with the popular belief of the communicability of phthisis, that in addition to what appears on page 117, we append the conclusions to which Leaming, after years of study, has arrived:

"If it were not for the adoption of Professor Koch's theories, as well as the acknowledgment of his discoveries of bacilli by gentlemen of high scientific attainments, such as Professor Bühle, of Bonn, and others, controversy would be unnecessary; but, as it is, we must examine the subject critically but dispassionately.

"Fibroid phthisis is not included in the form of consumption claimed to be propagated by bacilli. The germ theorists assume that all forms of phthisis are tubercular. But a large number of cases are fibroid, pure and simple, in which the diathesis is gouty or rheumatic, and not scrofulous. These ought to be exempt from suspicion even. Again, a vast majority of cases of tuberculated phthisis, that is with excavations, commence with plastic exudation within the pleuræ. These, on account of bronchial complications, are called by Niemeyer "catarrhal pneumonia," and he says "the great fear is that they may become tubercular." This fear is born of experience, and should direct us to proceed energetically, at the same time judiciously, to remove the plastic exudation while it is easy of accomplishment. It may be well to state here that we make a distinction between tuberculosis and tuberculated phthisis. Tuberculosis is the systemic disease which gives birth to true tubercle—the military tubercle of Bayle. Tuberculated phthisis is a term used for convenience and denotes the result of cheesy degeneration, in which cavities take place as a result of tuberculosis or other causes of necrosis of the lungs.

"The number of uncomplicated cases of tubercular phthisis—that is, of tubercle forming into concretions or nodules and being encapsulated, with no pleuritic adhesions and without fibroid in the lung, is extremely small. In a practice of more than thirty years in dispensary, hospital, and private, I cannot remember more than a very few cases. Laennec and Louis evidently refer to these cases under the term of latent phthisis and acute phthisis.

"This small number, commencing centrally in the lungs and not involving the pleura, are the only ones which could have had a parasitic origin. But even in these it is doubtful whether bacilli had anything to do.

"I do not doubt the discovery of bacilli in great abundance in tuberculous cavities and in the sputa of tubercular consumptives, as well as in the adjacent tissues, but I cannot accept the inference that they are the essential causes of tubercle. They may find in a tuberculous cavity a fit soil or home where they may grow and multiply.

"But the bacillus is not necessary to explain the occurrence, cause, and course of phthisis—fibroid or tubercular. As has been stated, all but a very small number of cases commence as fibroid—that is, with plastic exudation within the pleura, in which the bacillus is not a factor. This primary condition of phthisis may be the result of depressed vital power from various causes, long-continued and violent emotion, anxiety, worry, grief, or disappointment, more than from catarrhal causes. Or it may, but in a less degree, be the result of adhesions from acute pleurisy, which are a physical cause of vital depression.

A mother, after watching her children, three or four in number, through scarlatina of a severe type, began to cough, lose weight, and finally died of phthisis. She was well when the children were taken ill; she was a loving, anxious mother, and as they were attacked successively the time of her anxiety was prolonged. The children all recovered, but the mother was sacrificed. She was not aware of having taken cold. The cough was so insidious that no one could tell when it commenced. Had there been the same prolonged anxiety over a case of phthisis, followed by inconsolable despair at the loss of the loved one, it would have seemed to prove the communicability of consumption. But scarlatina germs do not originate phthisis, nor do bacilli.

Even in the ordinary forms of tubercular phthisis, for a considerable time the disease is simply fibroid—preventable phthisis.

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## GEOGRAPHICAL DISTRIBUTION OF PHTHISIS.

According to Hirsch's great work, "Hand-book of Geographical and Historical Pathology," recently issued by the New Sydenham Society, perhaps the best authority extant on the subject, the effect of climatic influence on the production, continuance or mortality of phthisis is much less than is generally accredited. While we are prone to consider it chiefly confined to the temperate zone, and largely the outgrowth of the higher civilization of the Anglo-Saxon race, he claims it to be "a disease of all times, all countries, and all races." The Esquimaux of the polar region, the Negro of the tropics, the inhabitants of the West Indies, and the people of the South Sea Islands, suffer more from its ravages, in proportion, than the Anglo-Saxon of the temperate regions of Europe or America. It is even more rapidly fatal in the tropics than elsewhere.

After an extensive examination of facts, extending over a number of years, Hirsch arrives at the following: Phthisis prevails everywhere; but it is rare in polar regions and high latitudes. Heat and cold *per se* have no influence whatever. Dampness, when combined with frequent and extreme oscillations of temperature, predisposes to the disease; but humidity of air is not so prominent a factor as *dampness of soil.* Occupation is important only as it tends to good or bad hygienic surroundings; while *over crowding, imperfect ventilation, and defective hygiene,* are the chief factors known to us at present.

### MOISTURE.

The effect of moisture is also greatly over estimated; at least, statistics prove it to be a much less prominent factor in the production of phthisis than is generally supposed. It may surprise many to learn, that the mortality from consumption is as great in sunny Italy as in damp and foggy England. And those who maintain that cold and dampness are the chief causes of this affection, will have difficulty in accounting for the almost complete immunity enjoyed by the people of the Hebrides and the Faroe and Shetland Islands.

### ALTITUDE.

The following are the conclusions at which Dr. Dennison has arrived, on the effects of altitude and a rarified atmosphere in the prevention or cure of phthisis:

"The *preferable climate* for the treatment of phthisis is distinguished by the five following attributes, named in the order of their importance:

"1. *Dryness* as opposed to *moisture.*
2. *Coolness* or cold preferable to *warmth* or *heat.*
3. *Rarefaction* as opposed to *sea level pressure.*
4. *Sunshine* as opposed to *cloudiness.*
5. *Variability* of *temperature* as opposed to *equability.*"

To these five principal characteristics are added five subordinate ones, as follows:

"6. Marked *diathermancy* of air to be preferred to the *smoky atmosphere* of cities, or the dense air strata of moist currents.

7. *Radiation and absorption of heat* by rocks and sandy loams better than *latent absorption* by water and damp clay soils.

8. *Mountainous configuration* of country (quick drainage) contrasted with the *flatness*, etc., of level stations.

9. Frequent electrical changes of atmosphere, also *moderate winds* (except in quite cold weather) preferable to continuous stillness of air.

10. *Inland altitudes,* contrasted with *sea air.*"

## CLIMATE.

The best climate for the tubercular patient is that in which is obtained the greatest freedom from mental and physical sufferings; a climate that is adapted to the peculiarities of each individual case. In other words, climate, like the homœopathic simillimum, to be either preventive or curative must be carefully individualized; must be selected, *not for consumption,* but to meet the needs of the patient. As generally practiced, the climatic treatment of the phthisical patient is little else than a farce; at most, a dangerous and costly experiment. Some physicians send their patients south, and others north; some to the sea shore, others to the mountains; some will advise a sea voyage, others an equestrian trip across the continent. There is no system, no method, no rule; the whims or taste or convenience of the patient being often a sufficient excuse for selection of the climate. The only general rule that can be given with comparative safety is, that, whether cold or warm, the atmosphere should be dry. For example: An atmosphere in which animal food, when hung in the open air and unprotected, will become dry and may be preserved indefinitely. In such a climate cases of phthisis, unless in the last stages, are often held in check, improved or completely restored.

Another requirement, and one absolutely essential to permanent curative results is, that whatever climate be selected, when found to agree, should be made the permanent future residence. One objection to the winter resorts of the South is, that they are only sought for temporary convenience, to be abandoned on the approach of spring for the colder and more agreeable watering places of the North. Our experience in the treatment of phthisis is, that it is not so much a *change of climate* that is needed as *life in the open air.* And this leads us to the consideration of the

### CLOSED ESTABLISHMENTS FOR PHTHISIS.

About thirty years ago, Dr. Brehmer, in a series of articles, announced his belief in the curability of phthisis by purely hygienic measures, and the establishment of a Sanitarium at Görbersdorf, in Silesia, under his management was the first practical result. But perhaps the most noted one is that at Falkenstein, near Francfort, under Dr. Dettweiler and there are several of lesser note in successful operation. The objects sought to be attained are:

*First.* Rest, mental and physical, in the open air.

*Second.* Respiratory gymnastics, which might be made to include the use of the pneumatic cabinet.

*Third.* Strict, systematic dietetic regulations.

*Fourth.* Personal hygiene; hydropathy.

The resort should be located at a medium altitude and surrounded by a pine or fir forest, so as to be protected from high winds, the severe storms of winter and the hot sun of mid-summer, as exposure to the latter is found to induce hæmorrhage in those predisposed to the diathesis. It is reported that 25 per cent. of the patients admitted to these "closed establishments" are permanently cured and relief obtained and life prolonged in a much larger percentage of cases. When we consider that only undoubted and desperate cases are likely to apply, this certainly speaks volumes for hygiene and tends to confirm Dr. Gregg's theory of disease of the mucous membranes, as the true cause of tuberculosis. The patients are compelled to live in the open air from seven to ten hours daily, and enter, on the understanding, that they are to remain until cured.

## LIFE IN THE OPEN AIR.

Many a tuberculous patient, even in the advanced stages, has been completely restored to health by "life on the ranch." The day is spent in laborious exercise in the saddle, and at night wrapped in his blanket with the saddle for a pillow, he sleeps the sleep of the just.

Says the great anatomist, Langenbeck: "I am sure now of what I suspected long ago, viz.: That pulmonary diseases are nearly exclusively (if we except tuberculous tendencies inherited from parents, I say quite exclusively) produced by the breathing of foul air. The lungs of all persons, minors included, who had worked for some years in close workshops and dusty factories, showed the germs of the fatal disease; while even confirmed inebriates, who had passed their days in open air, had preserved their respiratory organs intact, whatever inroads their excesses had made on the rest of their system. If I should go into practice, and undertake the cure of a consumptive, I should begin by driving him out, and prevent him from entering a house for a year or two."

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## PERSONAL HYGIENE.

One of the most potent causes in the production and maintenance of catarrhal affections of the mucous membranes of the respiratory tract, is the habit of *wetting the hair* before brushing or combing and allowing it to dry by evaporation. These persons would not think of wetting the feet three or four times a day, and allowing them to dry in the same way, and yet the effect is practically the same. Persons subject to nasal catarrh, especially, can rarely be cured while this vicious practice is maintained. And since Gregg has shown that the loss of albumen from the weakened and diseased mucous membranes is the primary cause of consumption, its importance cannot be over-estimated.

Catarrhal affections are rarely found in persons who do not suffer from impaired digestion, hence perfect digestion is one of the first objects to be attained in the prevention or cure of consumption.

### BATHING.

A sponge bath every morning with water which has stood in the rooom over night, is one of the best preventions of "takingcold" from the least exposure to atmospheric changes. It should be taken rapidly with a bathing sponge or washing cloth and, after drying, followed by a brisk rubbing with a crash towel until a healthy glow is obtained. If a full bath should prove too much of a drain on the vitality, i. e., if it be followed by chilliness or deficient reaction, then it should be confined to the chest, arms and shoulders; or it may be taken two or three times a week instead of every day. If possible it should always be taken in a warm room.

## EATING: HOW TO EAT; WHAT TO EAT; AND WHEN TO EAT IT.

Rapid eating is without doubt the bane of our boasted civilization. To this pre-eminently American habit is due the imperfect mastication, partial insalivation, impaired digestion, faulty assimilation and mal-nutrition of many of the grave lesions we are called upon to treat. Instead of spending from forty to sixty, the average time in which a full meal is disposed of is from fifteen to twenty minutes. As it cannot be thoroughly masticated in that time, it is "bolted" and washed down with water, tea, coffee, cocoa, wine, beer, etc., and as none of these are digesting fluids, the result is acid fermentation, yeasty products, and the formation of flatus.

### DIET.

Like everything pertaining to the cure of the sick or the maintenance of health, must be individualized, for it is impracticable if not impossible to prescribe a fixed diet that will agree with all patients. When a diet is found which perfectly agrees with the patient, eat that and nothing else. Yet it is often not so much a questi on of *what* to eat as *how* to eat it. We have found the following rules practical, though the list might be much extended:

Eat slowly; masticate thoroughly; food well masticated is virtually half digested.

The more saliva used, the more gastric fluid secreted; consequently the more perfect digestion.

It is not the quantity of food so much as the quality and method of eating that is needed; the person who obtains the most nutrition from the least food has best learned the art of living.

If the time for eating is limited, eat less, but *eat it well;* a small meal thoroughly masticated is far better than a large one hurriedly bolted.

Drink nothing at meals or for at least a half hour before, and during digestion, *i. e.*, from one and a half to two hours after eating.

When sitting down to a meal, if thirsty, a swallow of water held in the mouth for a minute will cool the mouth and throat and allay thirst.

When one can no longer eat without drinking, it is nature's hint to stop eating.

The best time to dine is, when for an hour or two after eating, comparative or entire rest, both mental and physical, can be taken; never eat when mentally or physically exhausted.

## SALISBURY'S MEAT DIET.

After a series of the most thorough experiments in the effect of diet in the cause and cure of disease, Dr. J. H. Salisbury comes to this conclusion: "No one can hope to treat consumption successfully by change of climate or by medicinal remedies. It is a disease arising from long-continued, unhealthy alimentation, and can only be cured by the removal of its cause. This cause is fermenting food, and the products of this fermentation (carbonic acid gas, alcoholic and vinegar yeast, and vinegar) are the more important factors in developing the peculiar symptoms and pathological conditions in this complaint, which is generally though erroneously believed to be incurable.

"Consumption of the bowels can be produced at any time in the human subject, in from 15 to 30 days, and consumption of the lungs within three months, by special, exclusive and continued feeding upon the diet that produces them."

And adds: "If the directions here given are faithfully followed and persisted in, consumption in *all its stages* becomes a curable disease."

*Drinks.*—"Drink from half a pint to a pint of hot water from one to two hours before each meal and on retiring, for the purpose of washing out the slimy, yeasty stomach before eating and sleeping. Drink a cup of clear tea, coffee or beef tea (the latter free from fat) toward the close of each meal, sipping slowly. During the interval between two hours after and one hour before each meal, drink hot water or beef tea if thirsty.

*Food meats.*—"Eat the muscle pulp of lean beef, chopped fine, made into cakes and broiled. This pulp should be as free as possible from connective or glue tissue, fat, cartilage, fasciæ, tendon, etc. Steaks cut from the centre of the round are the richest and best; and the beef should be procured from well fatted animals from four to six years old, and the pulp should not be pressed too firmly together before broiling.

"Make the cakes from half an inch to an inch thick. Broil slowly over a fire free from flame and smoke, and season to taste. Celery may be used as a relish. No other meats allowed until the stomach becomes clean, the urine clear — three pints or more daily — with a sp. gr. of 1015 or 1020, and the cough and expectoration cease to be troublesome. Then broiled lamb, mutton, game, chicken, oysters, and codfish broiled or baked, and a soft boiled egg at breakfast, if it does not color the urine, may be allowed.

*Bread.*—"Toast, boiled rice or cracked wheat may be eaten in proportion of one part (by bulk) to from four to six parts of meat. Bread should be made from gluten, white or Graham flour, raised with yeast and free from sugar.

*Bathing.*—"Take a soap and hot water bath twice a week for cleanliness, after which oil the entire body with glycerine and water, rubbing in well. Every morning sponge off with a little hot water, wiping dry and rubbing thoroughly. Avoid washing in cold water, that there may be no unnecessary expenditure of nervous force in the restoration of vital warmth.

*Clothing.*—"Wear flannel next the skin and dress with comfortable warmth. Change all clothing worn during the day on retiring, so that it may be thoroughly aired for the following morning. Underclothing should be changed every other day.

*Exercise.*—"Drive daily in the open air as much as possible, without fatigue. If not able to drive, the body and limbs should be rubbed and kneaded for ten minutes three times a day by some one who has sufficient strength to do it thoroughly.

*Meals.*—"Should be taken at regular intervals, and it is best to eat alone or with others who are on the same diet. After the system is in good running order more than three meals may be allowed if desired; a broiled steak, with a cup of tea, hot water or beef tea, may be taken midway between breakfast and dinner, and dinner and supper."

## THE HOMŒOPATHIC TREATMENT OF PHTHISIS.

The curability of consumption and kindred affections hitherto considered incurable, is a question of serious import to every follower of Hahnemann. Is it possible by any method of hygiene, or any system of medical treatment with which we are at present conversant, to curtail the terrible ravages of this scourge of the human race? The lines of demarkation between the curable and the incurable were never intended by Nature to be marked by a diagnosis; and as believers in a law of cure, it is our duty to carefully select and conscientiously apply the simillimum instead of folding our arms after making a fatal prognosis.

J. C. Burnett, M. D. says: "The limits of the curable and incurable are not represented by any fixed lines; what is curable to-day may be incurable to-morrow, and what we of this generation deem incurable, may be considered very amenable to treatment in the next generation."

In a thoughtful essay delivered before the New York County Society on "Homœopathy in its Relation to Malignant Diseases," by J. S. Mitchell, M. D., the author says: "Homœopathy has wiped out all symptoms of syphilis, save the lightest, and absolutely shorn the disease of its ancient terrors. It has shown that persons who have been reared under its benign influence are rarely subject to inflammatory rheumatism at any period of life. It has almost obliterated puerperal fever from the families of our adherents, and it has vastly diminished the prevalence of all the grave lesions, such as phthisis and Bright's disease."

After twenty-five years of careful study and investigation of the etiology, pathology and treatment of consumption, R. R. Gregg, M. D., says: "While I indulge in no wild hopes for myself nor offer indiscriminate encouragement to mislead others in the curability of consumption in its *advanced stages*, I nevertheless assert with emphasis, that a far greater proportion of cases in the *first stage* ought to be cured than ever has been. Indeed, I feel no hesitation in saying that a majority of cases in the purely catarrhal stage before the organization and deposit of tubercles ought to be and can be cured, provided they are correctly treated. To accomplish this, however, the patient as well as the physician, has his part to do. Especially must he forego all exhausting mental and physical labor, care and anxiety as far as possible; he must also avoid all injurious habits that may have had to do with the causing of his disease. In no other way can the complete curative action of medicines be obtained and maintained to the final cure."

"In the second stage of phthisis or that of tubercular deposit, before the suppurative process begins, a much smaller proportion of cases is curable; and yet here, under favoring circumstances, many have been cured. The exact simillimum, carefully selected and rightly administered, will often surprise the physician with its beautiful curative action, even in this stage."

"In the third stage of tubercular phthisis, that is, after tubercles of large size have softened, broken down the lung tissue and large cavities formed, very few are curable. Such cases are sometimes reported in the periodicals as having been cured after large cavities have formed; but it has always seemed to me that it was more probably chronic lobular pneumonia that had caused the breaking down of lung substance in these rather than primary tubercle, or at least the cases were more or less modified by the pneumonic process."

## THE SIMILLIMUM.

Pulmonary tuberculosis, like many malignant affections, is rarely cured in its later stages, after extensive cavities have formed. But the skillful application of the simillimum will often correct the constitutional ailments and prevent the development of phthisis.

Hitherto many methods of treatment, each based upon the supposed etiology or pathology of the affection, but each directed at the disease instead of the patient, has been proclaimed, only to meet the ignominious fate of its predecessors. The individuality of the patient has been largely if not entirely overlooked. It is the *patient* that is to be cured; and as no two patients are alike, it is worse than useless to subject all patients to the same treatment. Hence, neither change of climate, closed establishments, special diet, the movement cure, Oxygen treatment, electricity, nor personal hygiene in any form will alone suffice. Each of these in its individual sphere will accomplish something, for each has more or less effect on the activity of cell-life.

But have we not now sufficient data to warrant us in saying, that by a judicious individualization of all these agents, combined with the correcting of the underlying psoric diathesis by the exactly similar remedy, we may be able to control and eventually eradicate not only phthisis but its malignant allies, cancer and Bright's disease? And this will be brought about as C. W. Eaton, M. D., says: "Not from any troop of new remedies, not from a new law of cure, not from any revolutionizing discoveries, but from the vantage ground of a better understood and closer applied Homœopathy are we to conquer the incurable. * * * There are many methods, but only one law; and chance, accident or exception are unknown to natural law, hence the indicated remedy must bear the brunt of the battle."

There is no chronic affection in the homœopathic treatment of which greater care should be taken, or the rules of the Master more accurately followed. No guessing can be tolerated. The symptoms of the case must be written with care and the constitutional peculiarities which antedated the localization of the disease especially noted, always bearing in mind that "the greater the value of a symptom for purposes of diagnosis, the less its value for the selection of the remedy." When the most similar remedy has been selected and administered, allow it plenty of time to do its perfect work, using placebo liberally if necessary.

## THE THREE MISTAKES.

In Chronic Diseases, Vol. I, page 152, Hahnemann says: "There are three mistakes which the physician cannot too carefully avoid: The first is to suppose that the doses which I have indicated as the proper doses in the treatment of diseases, and which long experience and close observation have led me to adopt, are too small; the second great mistake is the improper selection of the remedy; and the third mistake consists in not letting the remedy act a sufficient length of time. In the treatment of chronic diseases the too hasty repetition of the dose cannot be too carefully avoided. The whole cure fails if the antipsoric remedies which have been prescribed are not allowed to act uninteruptedly to the end."

## HAHNEMANN'S THREE RULES.

The following practical rules of Hahnemann for the treatment of chronic diseases are condensed from Hering:

*Rule I.*—The characteristics of the drug must be similar to the characteristics of the case. "In making this comparison, the more *prominent*, *uncommon* and *peculiar* features of the case are especially and almost exclusively considered and noted; for these in particular should bear the closest similitude to the symptoms of the desired medicine, if that is to accomplish the cure."

"The symptoms of a case and the symptoms of a remedy must not only be alike, one by one, but they must also be of the same rank. In the *arrangement of symptoms* after the examination of a case, the value, the importance, the rank of the symptoms must be considered, for in a careful comparison of several remedies having the same similarity it is this rank of value which often decides the selection of the curative remedy.

*Rule II.*—This rule of practice is based upon Hahnemann's theory of chronic disesses; viz.: "all chronic diseases progress from without inwardly, from the less to the more essential parts of our body, from the periphery to the central organs, and generally from below upwards." Hence, in the selection of a remedy, one should be chosen which acts in the opposite direction—"from within outward, from above downward, from the brain and nerves outward and downward to the most outward and lowest of all organs, the skin."

Hahnemann's antipsoric remedies all have this peculiarity as characteristic—the evolution of effects (symptoms) from within outward. Hence, all symptoms of the sick having such a direction, from without inwards; and all symptoms of remedies from within outwards—the opposite direction—are always to be considered of the highest rank or value in the choice of the simillimum.

*Rule III.*—The symptoms recently developed are the first to yield; older symptoms disappear later. Or, as Hering says: "In diseases of long standing, when the symptoms or groups of symptoms have befallen the sick in a certain order, succeeding each other, more and more being added from time to time to those already existing, in such cases this order should be reversed during the cure; the last ought to disappear first and the first last."

The following are the advantages of this rule:

1. "When examining the patient, care must be taken to ascertain, as far as possible, the order, according to time, in which the symptoms made their first appearance.

2. "Arrange the recorded symptoms according to their value or rank, not neglecting any, either objective or subjective, but placing in the foreground and giving prominence to those which were the latest to appear; and to those especially should the remedy be similar.

3. "If the patient has been drugged our antidotes, to be most effectual, must be directed especially against *those last given.*

4. "In every chronic case, after the simillimum has had time to improve the case and ceases to do any further good, a new examination must be made, and in this, particular attention paid to new symptoms; and in the choice of a remedy these new symptoms must be carefully noted, as generally they are of leading or high rank.

5. "If we thus succeed in restoring a chronic case of long standing, the symptoms disappearing in the reverse order of their appearance, the case can be dismissed as cured without any danger of returning; if not, we had better tell the patient, even if he be satisfied with a partial cure, that before long he may be sick again.

"Without this third rule, the homœopathic healing art would be a most imperfect one. But this enables the true Homœopath, not only to cure the most obstinate chronic diseases—even those usually pronounced incurable—but also when discharging the case to make a certain prognosis, whether the patient will remain cured, or whether the disease, like a half-paid creditor, will return at the first opportunity. This is prevision applied to the cure of chronic diseases."

## ACALYPHA INDICA.

An East Indian member of the Euphorbiaceæ family, introduced, proved and applied in tubercular hæmoptysis by Dr. Tonnere, of Calcutta, to whom it was recommended by a native for jaundice, but when given for jaundice produced hæmoptysis in a number of cases. The symptoms have been verified by Drs. Payne, Cooper, Holcombe and others, not only in hæmoptysis but in hæmorrhages from any mucous membrane having the characteristics of Acalypha. Its range of action is necessarily limited by meagre and imperfect provings.

**Characteristic.** Hæmoptysis: *of pure, bright red blood in the morning; dark, clotted lumps in the evening.* Progressive emaciation (Iod.)

**Aggravation.** In the morning: Hæmorrhage.

**Larynx and Trachea.** Constant irritation in trachea, producing dry, fatiguing cough, worse at night but apparently not affected by position.

**Cough.** Violent; dry; irritating; worse at night and followed, but not relieved, by expectoration of blood.

**Lungs.** Constant and severe pain in chest, worse left side. Dullness on percussion. Tubercular deposits in left lung. Pulse small, depressed, from 100 to 120.

**Expectoration.** Of pure, bright red blood in the morning; dark lumps (clotted) in the evening. Hæmoptysis.

The clinical verifications of Acalypha have thus far been confined to hæmorrhages occurring in tubercular affections. Aconite, Erechthites, *Melilotus,* Millefolium, and many other remedies have bright red blood in hæmorrhages, but none of them have the morning exacerbation, the bright red blood in morning and dark, lumpy blood in evening.

**Relation.** *Acalypha* follows *Calcarea* well. It is followed by *Carbo veg.*, *Fer. phos.*, *Iodine.*

## ACETIC ACID.

Like Ferrum, Phosphorus and Sulphur, Acetic acid in unskilful hands, is a dangerous remedy in tubercular affections of the air passages. All the acids, and especially Acetic acid, whether given internally or applied externally to control the profuse night sweats, are prone to produce hæmorrhage in the consumptive. Hence, the single dose and the dynamized remedy are the safest. Too frequent repetitions are dangerous.

**Characteristic.** Face: pale, waxen, alabaster-like; sunken, emaciated (Fer.—pale, wrinkled, prematurely old, especially in nursing children, Abrot.)

Febrile heat intense; skin hot and dry, *but no thirst, during fever*, (Ign.). *Intense, burning, insatiable thirst;* drinking large quantities of cold water neither affects the stomach nor relieves the thirst (unquenchable thirst, but water disturbs the stomach and produces vomiting, Ars.): in Bright's disease, chronic diarrhœa, diabetes, dropsy, polyuria.

Hectic fevers, with cough, dyspnœa, diarrhœa and profuse, drenching night sweats which are not very exhausting. (Sec. Cinch., Fer., Phos., Stann.)

Emaciation of upper parts of body; lower parts dropsical (Lyc.—Sec., Iod.)

**Aggravation.** The symptoms of *Arnica, Lachesis*, and *Belladonna*, especially the headache of the latter, which becomes unbearable.

Lying on the back, cannot sleep from difficult breathing.

**Ameliorations.** Sleeps better lying on the belly.

**Larynx and Trachea.** Hoarse; hissing respiration with rattling in larynx; membranous croup with same respiration; loses breath on going up stairs (Cal.)

Respiration labored, difficult; cannot sleep lying on the back (loses breath at once on lying down, Ars.—severe dyspnœa on lying down, Spong.) Frequent inclination to take a deep breath (Bry.) which relieves.

**Cough.** Hoarse, croupy; has a hollow sound during inhalation (croupy cough during inhalation, Spong.); in the evening with coldness; at night hectic, dry skin, delirium; titillating, with purulent sputum; dry, with dyspnœa and oppressive breathing; with hectic, emaciation, diarrhœa, night sweats and œdema of feet and legs. Croup, in scrofulous children; entire face or only left cheek bright red.

**Chest and Lungs.** Hæmoptysis; coughs pure blood and bloody mucus.

Violent burning pain in chest and stomach, followed by coldness of skin and cold sweat on forehead; much aggravated by lying on the back.

Chronic bronchitis.

Chronic laryngitis.

Hæmorrhages; active or passive, from nose, lungs, stomach, bowels, uterus.

Hydrothorax.

Phthisis Florida: fibrous phthisis.

**Relation.** It antidotes all the anæsthetic vapors, and the fumes of charcoal. Also *Acon.*, *Coff.*, *Hep.*, *Ign.*, *Op.*, *Sep.*, STRAM., *Tab.*, *Alcohol.*

Follows well after *Cinch.* in hæmorrhages and night sweats.

Disagrees after *Bor.*, *Caust.*, *Ran. b.* and *Sars.*

## ACONITUM NAPELLUS.

The indications for the use of Aconite in tubercular affections are largely of a negative character, for Hahnemann has clearly pointed out that there is scarcely a trace of a constitutional dyscrasia to be found in its pathogenesis. Yet it is often well to know when not to give a remedy. To give Aconite for every acute exacerbation of a febrile character that occurs in the course of the ever changing phases of this disease, is to do the patient more harm than good, unless it corresponds to the totality of the symptoms, which it rarely ever can.

Dunham says: "There is no resemblance in the symptoms of Aconite to the features of any dyscrasia"; hence, as a rule, it can only be given with advantage for temporary aggravations, and these have reference almost solely to the cause, as fright, exposure to cold winds, etc.

**Characteristic.** Aconite is most frequently indicated in recent cases of illness occurring in young persons, especially in girls of a full plethoric habit and who lead a sedentary life; persons who are easily and readily affected by sudden atmospheric changes.

On rising from a recumbent posture the red face becomes deathly pale, or he becomes faint or giddy and inclines to fall over; in consequence, he fears to rise again. These symptoms are often accompanied by vanishing of sight and unconsciousness.

Great fear and anxiety, with consequent nervous excitability; afraid to go out; to cross a street or go into a crowd where there is any excitement or many people. The countenance is expressive of constant fear; life is rendered miserable by it. For the effects of mental shock.

Increased sensibility; the whole body is sensitive to touch.

Many of the symptoms are accompanied by shivering (Caps.—pains accompanied by chills, Puls.).

**It is also peculiar of Aconite that the urine scarcely ever contains a sediment, at least none that can be considered characteristic.**

There is a group of symptoms so characteristic of Aconite that Hahnemann said: "Aconite should not be given in any case which does not present a similar group of symptoms." These are the symptoms of the mind and disposition, viz.: restlessness, anxiety and uneasiness of mind and body, causing tossing and sighing and frequent change of posture; forebodings, anticipations of evil, anguish of mind, dread of death and even distinct anticipations of its occurrence.—*Dunham.*

In order to banish from our conscientious mode of treatment all of that quackery which is only too glad in selecting its remedy to be guided by the name of the disease, we must take care that whenever we give Aconite the chief symptoms of the malady, that is, of the acute disease, shall be such as are to be found in the strongest similarity of those of Aconite.—*Hahnemann.*

Aconite produces all the morbid symptoms the like of which are wont to appear in persons who have had a fright combined with vexation; and for these symptoms it is the best remedy.—*Hahnemann.*

Always in choosing Aconite as a homœopathic remedy, a special regard must be paid to the symptoms of disposition and mind, for these above all must be similar.—*Hahnemann.*

Hence, Aconite is indispensable to treatment after fright and vexation during menstruation, which without this soothing remedy is often instantaneously suppressed by such moral shock. —*Hahnemann.*

**Tuberculous patients are easily shocked and menstruation suppressed in consequence, especially in young girls.**

It happens that Aconite is frequently indicated at the very beginning of some acute affections, and that if properly used in such cases it will often cut short the career of the disease. From these facts has arisen a fashion of giving Aconite almost as a routine prescription in the beginning of all acute cases indiscriminately; particularly if the cases are supposed to be characterized by that protean phantom of the pathologist—Inflammation. Great mischief often results from this practice: negatively, inasmuch as it causes the loss of valuable time during which the true specific remedy which should have been given at the very first might have been acting; and positively, inasmuch as the Aconite often, when improperly administered, does real mischief, exhausting the nervous power of the patient and adding to a prostration which is already probably a great source of danger.—*Dunham.*

Aconite should never be given to save time. * * * * It were better to give nothing, because Aconite if given in a case which does not call for it might do mischief; as, for example, in the beginning of typhoid fever, in which it will unfavorably influence the entire course of the disease unless symptoms call for it, which they rarely ever can do.—*Dunham.*

This remark of Dunham's in regard to the administration of Aconite in typhoid conditions is equally applicable to the febrile conditions occurring during the course of tuberculous affections. Aconite should rarely, if ever, be given for the acute febrile congestions so often met with during the progress of the disease. The simple fact of a rapid pulse and a high fever temperature is not a sufficient indication for Aconite if the mental restlessness so characteristic of this remedy be absent. Neither should this remedy be given first to subdue fever and then some other selected to meet the case. Neither should it be alternated with other drugs for the purpose of controlling these febrile attacks, but the remedy must be chosen, in the totality of whose symptoms a similar febrile condition exists to that found in the patient, as each remedy produces a fever characteristically its own.

It is a well-established etiological fact that the children of tuberculous parents are subject to frequent attacks of croup, and this simple fact should place the physician on his guard when prescribing for the adult. If in childhood the patient had been subjected to frequent and alarming attacks of inflammatory croup, it is another evidence that Aconite should not be depended upon for the febrile conditions above mentioned.

**Aggravation.** In the evening; night; especially after midnight; in a warm room; from taking cold; drinking cold water; from tobacco smoke; lying on either side; on coming from the open air into a warm room (Bry., Ran. b., —from warm to cold air, Phosph., Rumex).

**Ameliorations.** In the open air; while at rest (except at night in bed); from perspiration; from wine; *lying on the back.*

The amelioration of the cough from lying on the back is very characteristic of Aconite and should always be borne in mind.

**Cause.** Where the cough is aggravated by dry, cold west or north-west winds; riding against a cold wind (Hep.); or when it occurs during hot days with cool nights; often when made worse by getting wet, especially getting the feet wet; from suppressed perspiration; by uncovering or sitting in a draught; rheumatic exposure of any kind; by fright.

**Throat.** Great dryness of throat, especially on waking; voice husky; sneezing, hawking, and sensation of lump in throat.

Feeling of splinter in throat, (Nit. ac., Sil.). Copious, thick, tenacious mucus in throat evening and morning. Thick mucus dropping from posterior nares, (Hyd., Spig.). Uvula swollen, elongated, with fauces and pharynx injected dark red.

Burning in throat; constriction of throat; scraping dryness and constriction in the throat, causing constant hawking and spitting. Rawness in the throat and posterior nares, compelling him to clear the throat frequently.

**Larynx and Trachea.** Larynx sensitive to inspired air, as if its mucous membrane were divested of its coating; tickling in the larynx, provoking cough; pain in larynx on coughing. Sensitiveness of larynx to touch, (Lach., Iod.). Raw feeling in throat, larynx and trachea, provoking frequent short cough.

Hoarseness: In the morning; all day; voice hoarse and rough; partial or complete loss of voice, sudden aphonia.

**Cough.** Short; dry; hoarse; loud; forcible; excited by scratching in throat; from irritation in larynx. Child grasps its throat every time it coughs, (Cepa.).

Frequent dry cough, with raw pain in chest and smarting in larynx.

Violent cough, with painful shooting in different parts of chest, compelling him to lie *always on the back* and preventing his lying on the side, (relief on right side, Phos.).

Cough; from talking or singing (Dros., Phos.), or sensation as of loose skin hanging in throat (sometimes feels as if a tough membrane moved about but would not loosen, Kali c.)

Cough and loud breathing during expiration; every expiration ending with a hoarse, hacking cough.

The cough is nearly always dry, and, as a rule, unattended by expectoration.

**Lungs.** Stitches about the chest; tightness, constriction, oppression of the chest. Stitches in the chest, with cough, aggravated by every inspiration, worse left side (Arn.—right side: Bry., Kali c.). Lancinating pains through the chest; breathing difficult; burning in the lungs; as if a hot fluid would come into the mouth.

**Expectoration.** Often wanting; thin; frothy; white mucus; streaked with florid blood; of thin fluid; of sweetish-salt taste like blood; brownish-red, rust colored; viscid mucus.

Hæmoptysis: florid blood (Fer. phos., Millef., Ipec., Melil.) from hemming, slight cough or easy hawking; with great anxiety; great fear of death; rapid pulse; from mental excitement; with stitches in the chest; after exposure to dry cold winds (of florid blood in those subject to local congestions and red flushed face, Fer., but the anxiety and mental fear of Aconite is wanting).

**Relation.** After Aconite the following act well: *Arn., Bell., Bry., Hep., Ipec., Pinus pal., Puls., Sep., Spong., Sulph.*

Aconite is often indicated after: *Arn., Coff., Sulph., Verat.*

Complementary to *Coffea*, in fever, restlessness, intolerance of pain; to *Sulphur* high, in all cases.

## ALUMINA.

In the advanced stages of tubercular affections, Alumina is rarely, if ever, called for. But in the various scrofulous derangements of the mucous membranes, especially those of weak digestion and imperfect assimilation in which the first symptoms of this insidious disease are manifested, it is one of our most useful and most frequently indicated remedies. Even in pre-natal life, the gastric and abdominal symptoms of the mother, the constipation from complete inactivity of the rectum, the drain on the vital forces from the persistent albuminous mucous leucorrhœa, call for Alumina as a constitutional remedy. Also, for the long train of symptoms which characterize chronic catarrhal affections of the mucous membranes, and the consequent loss of albumen, this powerful anti-psoric vies with Calcarea in frequency of indication in early life, and surpasses it in old age. From its symptoms, it is peculiarly adapted to prevent the development of consumption by correcting the psoric diathesis out of which it grows, rather than curing the disease after it has fully developed.

**Characteristic.** Is best adapted to persons of dark complexion; spare, dry, thin subjects of scrofulous habit, who suffer from chronic diseases, especially *catarrhal affections of the mucous membranes* (light, fair complexion, stout and fleshy, Cal.); anxious, mild, tearful, or excitable disposition; constitutions deficient in animal heat; old people, dry, withered looking (young, withered, prematurely old, Abrot.); hypochondriacs.

Skin: dry, tettery, itching eruption, worse in winter, (Petr.); intolerable itching of the whole body when getting warm in bed (Sulph.—worse while undressing or being uncovered, Rumex); scratches until it bleeds which then becomes painful (after scratching, burning, Rhus.)

Appetite for fruit and vegetables; *potatoes disagree;* for starch, chalk, clean rags, charcoal, cloves, acids, tea or coffee grounds, etc., etc.

Aversion: to meat, which is tasteless; to beer.

*Chronic eructations lasting for years*, especially in the aged; sour; bitter, after potatoes.

Constipation: of nursing children due to artificial food; no desire for and no ability to pass stool until there is a large accumulation; *with great straining*, must grasp the seat of closet tightly; stool hard, knotty, covered with mucus; or soft, clayey, adhering to parts (Plat.); *total inactivity of rectum.*

*Diarrhœa whenever she urinates.*

Urine voided while straining at stool; or, cannot pass urine without such straining (see Aloe.).

After menses; *exhausted physically and mentally* (the flow weakens her, she can hardly speak, Carbo an.—during the effort, is so weak she is scarcely able to stand, Coc.)

Leucorrhœa; acrid, profuse, transparent, running down to the heels in large quantities; often only in the daytime; relieved by cold bathing.

**Aggravation.** In cold air; out doors; while sitting or stooping. Skin symptoms; worse at new or full moon, and in winter. All mental symptoms worse in morning on waking.

**Amelioration.** In warmth; in mild weather; walking or standing erect.

**Larynx and Trachea.** Voice: rough; thick; husky; has a nasal twang.

Hoarseness: afternoons, evenings, with roughness and dryness of throat; evening and night, especially toward morning; disappearing while walking in the open air (coming and going, Puls.). Sudden, complete aphonia, (Tuberculinum). Rawness in the larynx on awaking.

Talking; produces hoarseness, especially in lively company.

Throat dry, voice husky on waking; uvula elongated. Thyroid cartilage painful to touch.

Clergyman's sorethroat (Arg. n., Arum, Kali b., Lyc.),

**Respiration.** Breathing: asthmatic, rattling, worse coughing; wheezing, with sensation of tightly adhering mucus in larynx, not removed by hawking or cough; arrested by copious, thick, tenacious, salty mucus; short, when lying on the back, relieved by turning on the side; worse from over-exerting voice, getting tired.

Oppressed; worse sitting stooped, better straightening up, or walking in the open air.

**Cough.** From talking (Anac.) or singing; caused by constant tickling, from elongated uvula; dry, hacking, with frequent sneezing (Sen., Squil.); dry at night, with dryness of throat; from sensation of loose skin hanging in throat (feels as if a tough membrane were moved about, but would not loosen, Kali c.).

Cough: Every morning a long attack of dry cough, ending in difficult raising of a little white mucus; soon after waking in the morning; with tearing pain and involuntary emission of urine, in old or withered looking people (compare, Caust. Fer. phos.).

Cough; easily excited by irritating things, salt, vinegar, mustard, pepper, wine, etc.

Cough; sudden, violent, irrepressible in the evening while sitting; with shooting pain in vertex.

**Chest and Lungs.** Talking causes soreness in chest; lifting produces or aggravates soreness in left chest; riding in carriage produces pain in chest.

Oppression; of chest, with constriction of œsophagus; with spasmodic pains in stomach and hypochondria.

Constricted sensation, with apprehension; worse sitting bent or stooping, better walking.

Oppressive pain in chest, violent, worse at night. Congestion of blood to chest and head, with redness of face and one ear, caused by suppressed hemorrhoidal flow.

Shooting stitches right to left in afternoon, worse going down stairs.

A stitch from left side of abdomen to middle of chest, when stooping.

Stitches extending from left side of vulva to chest.

Chilliness in chest.

Chest feels as if too large, too full of blood (Melilotus).

**Expectoration.** Sputum: saltish, thick, tenacious; difficult to detach; of a putrid taste. As a rule the cough is dry and the expectoration not marked or characteristic.

**Relation.** *Alumina* and *Bryonia* are Complementary.

*Alumina* is followed by: *Bry.*, *Sep.*

*Alumina* follows: *Bry.*, *Lach.*, *Psor.*, *Sulph.*, *Tuber.*

It antidotes ailments from Lead: painter's colic.

## ARSENICUM ALBUM.

There is scarcely a remedy in the entire Materia Medica that will yield more brilliant curative results in all stages of this affection—from the incipient symptoms of rapid emaciation, with or without the suspicious persistent cough, to the more advanced stages or even fully developed phthisis—than Arsenicum. Many cases of incipient phthisis, and not a few in the advanced stages attended with alarming symptoms have been permanently cured with this grand anti-psoric of Hahnemann. But, to attain this result, there also are few remedies which must be used with greater caution. Here it is absolutely necessary that the implicit directions of Hahnemann as to dose and repetition must be carefully followed if we would avoid that worst of all complications a serious aggravation. If we would avoid a catastrophe when Arsenic is the simillimum, we must heed the emphatic warnings of Hahnemann on the too frequent administration of medicines, especially the long acting anti-psorics.

Dr. Wurmb, of Vienna, in the *Homœopathische Clinische*

*Studien* 1. p. 179, when writing of the deep-seated action of this remedy, says:

> "Arsenic is one of those few drugs whose action is distinguished not alone by its intensity, but equally by its extent; it involves the entire organism. Every system, every organ of the body, every nervous filament, is so subjected to its powerful influence that we are not able to say which of its symptoms are primary, which are secondary, and where the focus of its action chiefly lies. We see the entire nerve-life attacked in all directions, from the slightest excitement to the most violent irritation; from a mere sensation of weakness to actual paralysis; from the slightest irregularity in the vegetative sphere to a cachectic dyscrasia; yea, even to decomposition and destruction of the organic substance."

From this profound, all-pervading action of Arsenic, affecting as it does every tissue and organ of the body, we have a powerful antidote, when indicated, for that constitutional dyscrasia which so frequently develops in tubercular diseases. And it is because of this peculiar action that the constitutional symptoms of Arsenic are of so much greater value than the local, in the selection of the remedy.

Dunham says:

> "The fact cannot be too often called to mind, nor too strongly insisted upon, that our most characteristic indication for the use of a drug which presents well-defined general symptoms, as Arsenic does, and indeed as every well-proved drug does, are derived not from its local action upon any organ or system, not from a knowledge of the particular tissues it may affect, and how it affects them, but upon the general constitutional symptoms and their conditions and concomitants. If this were not so, in the presence of how many maladies, of the intimate nature of which we are wholly ignorant and which nevertheless we cure, should we be utterly powerless for good."

Our want of success in tuberculosis is largely due to the fact that we pay too much attention to the local manifestations of disease—the local symptoms of the drug—and overlook both the general symptoms of the patient and the constitutional action of the remedy. In this way we fail to grasp the secret of success, fail to obtain the true picture of the disease as embodied in the totality of symptoms, objective and subjective, and should not blame our law of cure if it decline to act under such an interpretation.

Farrington, p. 506, says:

> "I want to introduce a caution in regard to Arsenic. It is not a remedy usually called for in the beginning of diseases. The tendency of the symptoms is deathward. If you give the drug too soon in a disease which tends deathward, you may precipitate the result which you are anxious to avoid. * * * You must be certain that the mental state is indisputably that of Arsenic, or you will do harm instead of good."

**Characteristic.** Great prostration, lassitude, weakness, with more or less rapid sinking of the life forces. Of this peculiar feature of Arsenic Hahnemann observes: "Even circumstances that are in themselves not very important and would otherwise produce but little effect, occasion in the Arsenic patient a sudden and complete sinking of the forces."

Hydrogenoid Constitution.

Complaints return annually (Carbo v. Sulph. Thuja).

The mental condition is peculiar and guiding:

*a.* Depressed, melancholic, despairing, indifferent.

*b.* Fearful, restless, anxious, full of anguish.

*c.* Irritable, sensitive, peevish, easily vexed.

*d.* Fear: of being alone; of death. Dread: of dying, when alone; on going to bed.

Excessive anxiety; great anguish; extreme restlessness.

Burning pains; the affected parts burn like fire.

Burning unquenchable thirst for cold water; drinks often but little at a time; eats seldom but much.

Burning thirst, without special desire to drink; the stomach does not seem to tolerate, because it cannot assimilate cold water; it is greatly longed for but patient cannot drink it.

Desire for: sour things; beer; brandy; coffee; wine (stimulants); milk; warm food; fruits and vegetables.

Aversion to: sweats; gruel; meats; butter; fatty things; farinaceous food; loathes even the thought of food.

Diarrhœa after eating or drinking; dark color, offensive odor, usually watery, scanty, worse after midnight and followed by great prostration.

Extreme exhaustion: from the slightest exertion.

Fainting: from weakness; from coughing; from talking; from walking.

From climbing mountains or other severe muscular exertion: great prostration; cannot sleep; asthma; want of breath; and many other chest complaints.

Rapid emaciation although feeling well or fairly well (Iod., Nat. m.); loses flesh rapidly while eating well. This progressing emaciation, more or less rapid, when the patient is eating well and there is no sufficient cause for it, is peculiar to Arsenicum and to Iodine and Natrum mur. It is a suspicious symptom and should always attract the physician's attention.

**Aggravation.** General: at night, especially after midnight (1 to 3 A. M.); from cold (except headache); cold drinks or cold food; lying on the affected, especially right side (Kali c.—relieved by lying on right side, Phos.); or lying with the head low (Spong.).

*Lying down greatly aggravates cough or breathing or both.*

Cold damp cellars aggravate or bring on asthmatic affections (Aran.—asthma with every fresh cold, every change to damp weather, Nat. s.)

Catarrh or cough at 5:30 P. M.; cough from 2 to 3 A. M.

**Amelioration.** General: from warmth, except headache, which is relieved by cold bathing or cold air.

**Larynx and Trachea.** Aphonia. Hoarseness, acute and chronic.

Voice: hoarse; weak; trembling; very uneven, now strong, now weak; rough; hollow; complete loss of voice.

Dryness of larynx and trachea, with burning.

*Sudden catarrh threatening suffocation at night.*

*Sensation as if one were inhaling dust.*

Smoky sensation in larynx as of the vapor of sulphur, causes cough before going to sleep in the evening.

*Spasm of Glottis.*

Croup,with coryza; cannot breathe through the nose; worse at night, very restless.

*Symptoms simulating membranous croup; caused by suppressed or non-appearing eruption, especially urticaria;* suppressed itch (Caust.).

Constant tittillation in the larynx, inducing cough, even when not inspiring.

**Respiration.** *Wheezing respiration,* which ranges from a fine wheezing to a coarse râle (but not so coarse as that of Ant. t., Ipec. or Opium) often accompanied with cough and a frothy expectoration.

*Frequent oppressive shortness of breath in every position of the body, causing anxiety.*

*Loss of breath immediately on lying down in the evening, with whistling, wheezing, and constriction in the trachea.*

Air passages seem constricted, cannot breathe freely; worse after midnight.

Oppression; want of breath; a nocturnal asthma makes him spring up at midnight. Respiration; short, anxious, oppressed.

Oppression worse: when walking fast; ascending; warm, tight clothing; in stormy weather, heavy air; but especially from changes of warmth and cold; taking cold in midsummer.

Asthmatic breathing: coming on suddenly at 12 P. M.; must spring out of bed, and obtains relief by inclining chest forward.

**Cough.** *At night on lying down, and in the morning on rising;* regularly every night and morning (evening when lying down, when warm in bed, Puls.—lying in bed, becoming warm in bed, Nat. m.).

Cough: from constant tittillation in larynx; by smoky sensation as of vapors of sulphur in larynx; when going into cold, open air; especially after drinking (Dros.—eating or drinking, Phos.); with bloody sputum.

Night cough; from 1-3 A. M.; must sit up as soon as it begins; asthmatic, with gasping for breath.

Cough depending on organic lesions or deep-seated affections: asthma; anæmia; cyanosis; hypertrophy of heart; attended with nervous irritability, exhaustion, collapse.

*Cough, with bloody sputa.*

Cough: short, deep, dry, unceasing, after midnight.

The cough of Arsenic is not so distinctive or peculiar in itself as that of many other remedies. But its aggravations or ameliorations, the times or circumstances under which it occurs are always guiding.

**Chest and Lungs.** *Acute, sharp, stitching, fixed or darting pain in apex and through upper third of right lung* (sharp, stitching pains through right lung, middle and lower third, Bry., Kali c.).

Stitches: in upper right chest; in left chest only during inspiration (more frequently in lower part or in left hypochondrium); in or under sternum from below up.

Burning and heat in chest, sometimes extending below diaphragm to stomach.

Chilliness in chest, evenings.

Constriction of chest; when walking fast; when going up hill.

Constriction of chest with great anxiety and restlessness, evenings; with oppressive anxiety at pit of stomach; burning, or feeling as if excoriated and raw.

Wheezing in chest with bruised pain between shoulders.

Tightness of the chest, as if bound by a hoop (as if an iron hand prevented its normal movements, Cac.—see Arn., Bufo, Iod., Lil., Nux m., Sulph.).

Yellow spots on the external chest; upper part of chest yellow (Sep.).

Great weakness in chest in attempting to move or sit up.

Bellows murmur, either from thinness of the blood or thickening of the aortic valves, especially if accompanied by wheezing respiration or frothy expectoration forms an additional symptom for Arsenicum in the early stages of tuberculosis.

**Expectoration.** *Frothy saliva; frothy sputa; yellow mucus, enveloped in or mingled with froth*; *mucus, streaked or specked with blood.*

A *frothy* expectoration is the characteristic of Arsenic and in the frequency with which it will be called for when this symptom is present, it outranks all other remedies, although Acon., Fer., Lach., Phos., Sil. and many others have it more or less prominently marked.

Expectoration: white; gray; grayish-yellow; yellow; thick; bloody; blood-streaked; feted; dark; green or yellowish-green; brown or yellowish-brown; purulent.

Expectoration: bitter, in the morning; salty by hawking.

Tenacious mucus, difficult to dislodge, with rattling in chest (Kali b.).

Hæmoptysis at night, with burning heat over whole body (with red face and throbbing carotids, Melilotus).

Foaming (frothy) bright red blood bursts forth in a stream, with slight hawking; ebullition, burning and fullness in chest (Arn., Bell., Calc., Carbo v., Dul., Ipec., Led., Mel., Phos., Sec.)

Hæmoptysis: after loss of blood; burning heat all over, especially with pain between scapulæ; in drunkards; suppressed menses; suppressed eruptions.

Hæmoptysis; hacking cough every morning, with expectoration of bright red fluid blood, with burning in left chest.

**Relation.** Arsenic is useful and often curative in patients who have suffered or are suffering from: effects of excessive tobacco chewing; alcoholism in any form; abuse of Cinchona or Quinine; abuse of topical application of Iodine.

Remedies which follow well; *Aran., Cinch., Fer., Hep., Iod., Lyc., Nux v., Sulph.*

Remedies which Arsenic follows: *Acon., Arn., Bell., Ipec., Lach., Verat.*

Complementary: *Ars. Iod., Carbo veg., Phosphorus.*

When *Arsenic* is repeated, it is always advisable to change the potency.

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## ARSENICUM IODATUM.

The Iodide of Arsenic has been used clinically, but empirically, in various tubercular affections, especially hæmorrhagic phthisis, and cures are reported by Drs. Niemeyer, Nankivell, Pope, H. V. Miller, Nichol and others. But its use appears to have been chiefly based upon the well-known indications of the two drugs of which it is composed, rather than upon any characteristics which it has yet produced on the healthy. The symptoms of many of the cases reported were those chiefly pathognomonic of phthisis, instead of pathogenetic of Arsenicum Iod., and the cases reported cured presented distinctive symptoms of Arsenic. Moreover, the cases reported relieved or cured were treated with the lower potencies (first to sixth decimal), frequently repeated, and cod liver oil or other remedies were given at the same time, thus materially detracting from their clinical value. There is nothing distinctive, nothing scientific, in prescribing the Iodide of Arsenic for phthisis, any more than any other of the hundreds of "cure-alls" which from time to time have been lauded as specifics for this terribly fatal affection. It needs a careful proving.

**Characteristic.** Affects — the right lung, especially upper and middle third (Ars.—middle and lower third, Kali c.).

Pronounced emaciation and great prostration of life forces (Ars.)

Face: sallow; pale; cadaverous.

Adapted to persons of dark complexion, black hair and eyes (Iod.)

Lung troubles: from living in basements; sleeping in damp, wet rooms; working in cellars or other underground places (Ars., Aran.).

For the acute degenerations (fibrous or caseous) following repeated attacks of bronchitis or catarrhal pneumonia, rather than hereditary phthisis.

Wheezing respiration; aggravation by lying down (Ars.)

Cannot sleep or breathe when lying in a horizontal positian; must be bolstered up in bed (Ars.).

**Aggravation.** In cold air; cold, stormy, changeable weather; at night; lying down; ascending a height; going up stairs; physical exertion.

**Amelioration.** Warmth; sitting up in bed, or lying with the head elevated.

**Larynx and Trachea.** *Soreness in larynx.* Sore, raw sensation in larynx in damp or changeable weather (Arum).

Hoarseness, worse from talking or singing.

**Respiration.** *Wheezing breathing on first lying down.*

Dyspnœa: on exertion; when going up hill or up stairs; at night so that she had to sit up to breathe (Ars.).

Breathing: feeble; weak; hurried; in occasional asthmatic attacks; too rapid even when at rest, increasing on exertion, soon becoming an audible wheezing.

**Cough.** Hoarse, racking cough, day and night, with profuse purulent expectoration.

Slight hacking cough with dryness and stoppage of the nostrils.

Cough: frequent, short, suppressed; often loose with muco-purulent expectoration.

A violent cough for years, with inability to bring up the sputum; the cough excites vomiting.

**Expectoration.** Heavy, night and morning.

Sputa: loose; stringy; muco-purulent; profuse, purulent; green; gray; offensive; nummular, of thick yellow matter; difficult to expectorate.

After moving about a short time in the morning he hawked up quantities of thick mucus mixed with clotted blood, seemed to come from the head.

Hæmoptysis: of bright red blood; clotted, mixed with mucus; profuse and exhausting.

**Relation.** Complementary to *Arsenicum alb.*

Follows *Sulphur* well in pulmonary affections.

## BADIAGA.

A very popular drug in Russia for scrofulous catarrhal affections of the air passages. Its provings and clinical verifications, demonstrate its usefulness in scrofulous adenitis and other affections of the lymphatic system, showing its marked influence over the process of assimilation in which the early symptoms of tuberculosis are first seen.

Hahnemann's observations have been withheld from our school by his widow.

**Characteristic.** Scrofulous constitutions with a general cachectic appearance.

Affects right lung, upper third (Ars., Ars. Iod.).

Scrofulous enlargement and induration of the glands (Iod., Cis.).

Syphilitic glandular affections, engrafted on a scrofulous basis. (Syph.).

**Aggravation.** Worse in stormy weather: motion.

**Amelioration.** Better in a warm room.

**Larynx and Trachea.** Dryness and scraping in larynx. Catarrhal affections of the throat.

**Respiration.** Severe oppressive suffocative attacks from suspended respiration, while lying in bed on right side just before becoming unconscious by sleep; quick effort to prevent suffocation by changing position.

**Cough.** Occasional severe paroxysms of spasmodic cough, ejecting viscid mucus from the bronchial tubes which at times comes flying forcibly out of the mouth; more during the afternoon and evening; caused by tickling in the larynx as if sugar was dissolving; better in a warm room (detached lumps of mucus fly out when coughing, Chel.).

Cough causes sneezing (cough caused by sneezing, Senega—cough, profuse coryza with much sneezing, Spong.).

Cough; loose mornings, tight afternoon and evenings.

During each attack of spasmodic cough he presses his head with his hands (violent cough at night, must sit up and hold the head, Nic.).

**Chest and Lungs.** Severe pain in upper part of right chest.

Severe, sharp, lancinating pain in right supra-clavicular region (Ars.).

Sharp lancinating pains in right chest, with soreness; worse afternoon and evening.

Pleuritic stitches in right side, from 7th to 8th rib; worse from least motion or inspiration; much soreness of chest.

**Complementary.** *Iodine*, *Mercury*, *Sulphur*.

*Badiaga* is followed well by *Lachesis*.

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## BAPTISIA.

Few remedies are better adapted to every stage of tuberculosis, than Baptisia. In the prodromic stage, when the mental and febrile symptoms correspond, it will often prevent a further development and restore the patient to health; in the later stages it may avert a fatal issue, and in the last stage it is one of our best palliatives, soothing the sufferings of the incurable patient far better than any preparation of Opium.

Dr. Brigham, in his work on consumption, says: "Baptisia is adapted to many symptoms which find expression in the tubular passages, and may be used to ameliorate some cases of phthisis, but hardly meets any cachexia." For this, or for some other reason—perhaps its successful use in acute affections of a typhoid tendency, but more likely from a routine habit of prescribing for the name of a disease—Baptisia has been sadly neglected in the treatment of tuberculosis. If a careful comparison of the totality of the symptoms of a patient demonstrate Baptisia the simillimum it will afford prompt relief whether we can diagnose a cachexia or not. It is in the incipiency of the disease, that the real cures are to be made, and here Baptisia may prevent the development of the ulcerative process as it has often prevented the development of typhoid. The characteristic indications for Baptisia are found in the general and mental, rather than in the localized symptoms of chest and lungs.

**Characteristic.** Best suits the lymphatic; the robust.

Confusion of ideas; confused as if drunk (Bell., Gels., Mel., Rhus).

Indisposed to think, or want of power to think; mind seems weak, inability to control it or to fix the mind on anything.

Perfect indifference; despondent, loss of hopefulness.

Mentally restless, but physically too lifeless to move.

Cannot go to sleep because she cannot get herself together; feels scattered, and tosses about to get the pieces together; thought she was three persons and could not keep them. (See Petr.—head feels thick, thinks it belongs to another, that she can lift it off, Ther.).

Face: flushed, dusky; dark red, almost purple, with a stupid, besotted expression (Gels.).

Can swallow liquids only; the least solid food gags (can swallow only liquids, but has aversion to them, Sil.).

Great prostration with tendency to decomposition of fluids.

Ulceration of mucous membranes; exhalations and discharges offensive, fetid—breath, stools, urine, sweat, ulcers (Carbo v., Psor.).

Intolerance of pressure: in whatever position the patient lies the parts rested on feel sore and bruised (everything on which he lies feels too hard, Arn.).

Chill at 11 A. M. every day; fever every afternoon, followed by perspiration.

Right side most affected (Ars., Bad., Kali c., Lyc.).

Desire for fresh air; must be constantly fanned (Carbo v.).

**Aggravation.** From thinking of pains (Bar. c., Oxal. ac., Oxytropis—see Helon.). Motion. Cough and restlessness at 3 A. M. (Kali c.); soreness of larynx, by touch or pressure.

**Larynx and Trachea.** Hoarseness; aphonia.

Larynx very sore to touch; speaking or swallowing painful.

**Respiration.** Asthmatic oppression of chest, with frequent yawning; worse from motion; better after rest.

Breathing, oppressed in the evening; right lung sore.

Dyspnœa, with a tight cough.

On lying down difficult breathing, but no constriction of chest (as in Arsenic); arises from want of power in lungs, not constriction.

Awoke with great difficulty of breathing; lungs felt tight, compressed; could not get a full breath; must open window and get his face to the fresh air (Carbo v., Sulph.); must be fanned (Carbo v.); burning heat of the skin; dry tongue; accelerated pulse; peculiar feeling in the brain.

**Cough.** From tickling in the throat; uvula elongated (Alum.).

Cough during afternoon fever; constant, racking; increasing soreness of larynx and chest.

**Lungs and Chest**. Sensation of tightness of chest. Pain in right lung; less pain in left, but more soreness.

Sharp pains in chest when taking a long breath.

Dull, oppressive pain in left chest; worse on motion and inspiration.

**Expectoration.** Increased secretion of mucus from the fauces and bronchi.

Sensation as if wanted to raise a great deal.

## BELLADONNA.

It is a well known fact in physiology that animals having only a rudimentary brain are not readily affected by the narcotic poisons. Man, on the other hand, having relatively a large anterior cerebral development, is extremely susceptible to their action. It is well known that rabbits eat the leaves of Belladonna with impunity, while of all the animal creation man is the most easily and violently affected by the poison; and the greater the intellectual development the more susceptible is the individual to its influence. Hence, persons, especially children and young people, with a marked fullness in the centre of the forehead, well rounded out both above and laterally, marking precocious or brilliant mental development, often present a train of symptoms the exact counterpart of Belladonna. For the homœopathic therapeutist this is a valuable hint, as an abnormal or precocious mental brilliancy is one of the first manifestations of the tubercular diathesis, and clinical observations have abundantly verified the curative action of Belladonna in this class of cases, when the complex of symptoms correspond. It is in this deep-seated constitutional action that, like Calcarea, it modifies and corrects incipient tubercular affections. But it must be prescribed in the totality of its symptoms, not for precocious mental development, if we would obtain the best results.

Few remedies equal and none surpass Belladonna in its curative effects in chronic laryngitis or in the early stages of laryngeal, bronchial or pulmonary tuberculosis. The most peculiar, uncommon and characteristic symptom of Belladonna is the dry, *hollow* cough.

**Characteristic.** Is best suited to the plethoric, fleshy, phlegmatic constitution; persons who are pleasant, jovial and entertaining when well, but become exceedingly irritable, overbearing, often violent and delirious when sick. The social qualities which make them such agreeable companions appear to be converted by illness into the opposite condition.

Children, young persons, women, with light hair, blue eyes, fine complexion, delicate skin; sensitive, nervous, threatened with delirium or convulsions on slightest ailment.

Over-excitability of all the senses; convulsions during dentition (without fever, Mag. phos.); spasms of single muscles or of the whole body; over-sensitive brain.

Persons who are extremely well or very sick; all attacks and pains come on suddenly, last indefinitely and cease as suddenly as they came.

Head conjested, hot, painful; face red, flushed; violent throbbing of the carotids (the same, with epistaxis, which affords relief, Melilotus).

Pulse: full, firm, bounding; *globular*, as though a succession of buck shot or globules of mercury were passing under the finger, is very characteristic of Belladonna.

Young persons of brilliant intellectual development, especially when this mental activity is preternaturally excited by the onset of the disease.

Great liability to take cold; very sensitive to drafts of air, especially from uncovering the head; complaints from having the hair cut (Acon., Hep., Rhus—takes cold from exposure of feet, Con., Cup., Sil.).

Belladonna, like its complement Calcarea, is adapted to the scrofulous and rickety diathesis, especially the latter.

Great dryness of mucous membranes of mouth, throat, larynx, trachea, bronchi; stool retarded; urine scanty, suppressed.

**Aggravation.** Cough 10 to 12 A. M. and at midnight or just before; from motion or jar; pressure; touch; noise; uncovering the head; draught of air; the hot sun; while drinking; and looking at bright, shining objects.

**Amelioration.** In a warm room; rest.

**Larynx and Trachea.** *Great dryness of larynx.*

Aphonia: painful, difficult speaking; speaks in a piping voice; confused sounds uttered with pain; while speaking, the weak voice suddenly becomes loud and clear (voice uncertain, uncontrollable, continually changing, Arum); voice feeble, husky.

Hoarseness: especially when crying; voice rough, with painful dryness in larynx; pain in larynx when swallowing; must swallow often to relieve the dryness and cough; in sudden attacks.

Great dryness of larynx; fauces red.

Larynx: sensitive to slightest pressure (Lach.); as if constricted; as if inflamed and swollen, with threatening suffocation in sudden attacks of croup-like spasms.

Spasms of the glottis.

**Respiration.** Breathing: rapid, hurried, anxious, difficult; rattling with cough.

Asthmatic paroxysms; in afternoon and evening, with sensation of dust in lungs; in suffocative attacks; in hot damp weather (with every change to damp weather, Nat. s.); worse after sleep (Apis, Lach.).

Dyspnœa; at night; after rising in the morning; better in the open air.

**Cough.** *Very dry cough,* day and night, from tickling in larynx, with red face and frontal headache.

Cough: from dryness in larynx; from tickling in back part of top of larynx, evening after lying down in bed; from violent scraping in larynx; from sensation of a foreign body in larynx; short, dry, spasmodic; hoarse, hollow, barking.

Tickling and burning in larynx, causing violent paroxysms of cough.

Cough: wakens patient about 10 or 11 P. M., and occurs in frequently repeated attacks every 15 or 20 minutes; three or four coughs at a time; nocturnal laryngeal coughs; from sensation of constriction of larynx, almost threatening suffocation from touching the throat (Lac. can., Lach.).

Cough causes acute pain in left hypochondrium, shooting upwards, worse lying on either side or walking.

In chronic laryngitis or chronic bronchitis a *hollow* cough is very indicative of Belladonna; may also be hoarse or croaking, but usually the hollow sound predominates when it is called for in laryngeal affections.

Cough with a taste of blood in the mouth, as in Elaps and Hamamelis, often precedes hæmoptysis.

Attacks of cough ending with sneezing (Alum., Bad., Sen., Squil.).

During cough: pain in head, sternum, pit of stomach "seems to strike there," abdomen, hips or legs; constriction of throat; rush of blood to the chest; stitches in chest or uterine region; action of stomach reversed; vomiting of mucus; bloody taste in mouth; red, flushed, hot face; bleeding from ear or nose; threatened convulsions.

**Chest and Lungs.** In the beginning of chronic lung disease with a *hollow* cough, more hollow and different from that of croup; barking, harsh cough; precisely at midnight (Arg. n.) or a little before; stitching pains from right side of abdomen to mamma, right scapula (inner border), point of right shoulder, through right lung (compare Ars., Bry., Kali c.).

Pain: acute, beginning in right hypochondrium or lower part of right lung and darting upward through right lung to point of right shoulder, under right scapula, into or behind the right breast, greatly aggravated by coughing, deep inspiration, moving the arms; fine, darting, stitching pains in apex of right lung, from before backward, just under the clavicle; pains under the sternum or from sternum to left axilla.

Pressive pain in chest, extending to back, worse on right side.

Tightness, oppression, constriction of chest as if pressed inwards from both sides.

Burning in right chest (Ars.).

**Expectoration.** Hæmoptysis; bright red, pure blood, with redness of face, burning hot cheeks and forehead and sensation of ascending warmth to head; cold hands and feet and irregular but rapid and globular pulse. (Melilotus.)

Expectoration of bloody mucus.

**Relation.** Follows well, after: *Acon.*, *Ars.*, *Cal.*, *Cup.*, *Hep.*, *Lach.*, *Mer.*, *Phos.*

After Belladonna, the following are often curative: *Acal.*, *Cal.*, *Hep.*, *Hyos.*, *Lach.*, *Sen.*, *Sulph.*

Incompatible: *Pinus pal.*, *Tereb.*, vinegar. But, Hering says, after Belladonna, if there is a strong craving for lemon juice it may be allowed, hastening convalescence.

Complementary: *Calcarea.*

## BORAX.

Hahnemann rescued Borax from the nursery, where as a topical application in the treatment of sore nipples and the aphthæ of nursing children it had won its first laurels, and gave it a place in his Chronic Diseases. Like Arnica, and many of our "popular" remedies, the indiscriminate use of Borax has led to grave abuse. Many members of the profession seem only to think of it in the diseases of children, apparently forgetting the fact that "an adult is only a child grown up," and overlooking the constitutional dyscrasia which manifests itself in the impaired nutrition, the defective assimilation, the keynote of which is the apthous condition so characteristic of Borax. This depraved nutrition often marks the first impairment of health in the tubercular process and may find its curative agent in Borax.

**Characteristic.** *Dread of downward motion.*

Great anxiety from and dread of downward motion: when laying the child down on a couch or in the crib; when rocking; dancing; swinging; going down stairs; riding rapidly down hill; horseback riding; any downward motion. (The patient is probably suffering from cerebral anæmia, and downward motion causes fear of falling).

Excessively nervous; easily frightened by an unusual sound; the slightest noise; the mere rustling of silk or paper (Asar., Taren.); a distant shot; an anxious cry; sneezing; hawking; coughing.

Aphthæ: in the mouth and on the tongue; on inside of cheek, easily bleeding when eating or touched; with hot mouth, dryness and thirst (Ars.); with cracked and bleeding tongue; with salivation, especially during dentition (Mer.); cheesy with redness of mucous membrane (Sulph. ac.); worse from touch or eating salty, sour or spiced food; extending to throat and larynx.

Leucorrhœa; profuse; albuminous; starchy; or acrid, appearing for two weeks between the catamenia (see Bov.); with a sensation as if warm water were flowing down.

Skin: unhealthy; slight injuries suppurate (Hep., Sil.); severe itching on back of finger joints (Nat. c., Sep.); sensation as if a cobweb were lying upon the skin of face or hands (on right forehead, tries hard to brush it off, Graph.)

For persons of light complexion, light hair; muscles flabby; skin lax; predisposed to catarrhal affections.

Stitching pains in right chest (Ars., Bell., Bry., Kali c.).

**Larynx and Trachea.** Scratching in throat, with pressure in chest and cough.

Tearing in larynx in evening, extending to chest, exciting cough.

The entire fauces thickly studded with whitish pimples extending into larynx, with severe pain when swallowing; severe burning sensation in throat, larynx, trachea, and bronchi.

**Respiration.** Shortness of breath after ascending steps, so that he cannot speak a word, (Cal.); later when he speaks he has *a stitch in right side of chest*; stitches also on running or any exertion of the body, which hurts him.

Every three or five minutes he is obliged to take a quick, deep breath, which is every time followed by *a stitch in right side of the chest*, with a subdued, painful sigh, and slow expiration.

Arrest of breath when lying in bed; he is obliged to jump up and catch for breath every time he has *a stitch in right side of chest.*

When taking a deep breath: stinging pressure in sternum; drawing stitch in right chest; stinging pain in chest; stitches into left chest, as with a knife; sensation in left hypochondrium as if something pulled from the region of spleen into chest, which sinks back again during exhalation; oppressed respiration with burning, raw feeling in fauces.

Anxious sensation in chest in evening in bed.

Difficult respiration; he is obliged to breathe deeply, which he cannot do on account of stitches in the chest.

**Cough.** Dry, cachectic, as in old people, especially in the morning on rising and in the evening when lying down; with stitching pain in right chest and right flank, relieved by pressure; relieved by washing chest with cold water; aggravated by wine.

Hacking, violent cough, with a slight expectoration of a *mouldy taste and smell,* from the chest, with every paroxysm of cough.

Violent, though usually dry cough, with pain through right chest, has to press the chest with both hands for relief (had to sit up and hold chest with both hands, Nat. s.); occasionally raises small white or yellow lumps.

Cough with mucus expectoration during the day; worse in morning; pain in right hypochondrium.

During cough: stitching pain through right chest and right flank, relieved by pressure; sticking in right side of chest, in region of nipple; pain in hepatic region; mouldy taste.

**Chest and Lungs.** *Acute, sharp, aching pressure* through the apex of right lung from before backward, beneath right clavicle, to scapula, with soreness and burning in throat.

Stitches in right chest and pain in right inguinal region, when yawning, coughing, breathing deeply (compare Ars., Bry.)

Stitches in right side of chest in region of nipple, with every paroxysm of cough.

*Pleuritic stitch in right pectoral region; the patient cannot move or breathe without a stitch.*

Sudden stitches from within outward in the right side of chest, on raising the arm (through to back when taking an inspiration, Kali c.).

Fine prickings extending from the back into the chest in the evening.

Tightness of the chest with constrictive oppression of breathing on going up stairs; is then obliged to take a deep inspiration, which is always accompanied by an intensely painful drawing stitch from without inward in the right side of the chest.

Stitches between ribs of right side, so that he cannot lie on that side on account of the pain, with intensely painful drawing and obstruction of breathing so that he has to catch for breath; if he lies upon the painful side the pains immediately awaken him from sleep, (Kali c.—stitching pains in right chest, better by lying on the painful side, Bry.).

Drawing stitching pains in right lung.

Knife-like stitches in left chest with every inhalation.

**Expectoration.** Sputa: slight, of a mouldy taste and mouldy smell; of white mucus streaked with blood; of small white or yellow lumps; leaves mouldy taste in throat.

**Aggravation.** *Downward motion;* coughing, sneezing, yawning, deep breathing, dancing; motion; ascending; lying on painful side; from touch and eating salty, sour or spiced food (aphthæ); wine.

**Amelioration.** Pressure, holding painful side with hand (Nat. s.); lying on back; washing chest with cold water.

**Relations.** Borax follows: *Cal.*, *Psor.*, *Sulph.*

Is followed by: *Ars.*, *Bry.*, *Lyc.*, *Phos.*, *Sil.*

Incompatible and antidotal: should not be used before or after *Acet. ac.*, vinegar, wine, sour fruit.

Borax acts best in the potentized form. It is not a simple, harmless, domestic remedy to be used as a topical application in any case of sore mouth at the whim of the nurse or attendant. The infant "fed on Borax" soon assumes a pale, cachectic, earthly appearance, and the flesh hitherto firm and elastic becomes soft and flabby. Assimilation is impaired and health thus undermined by this abuse of Borax.

## BROMIUM.

While the curative range of Bromium is not so extensive as that of many of our antipsorics, yet since Hering published its proving in 1846, many splendid cures have been placed to its credit. Its temperament, and especially its chest pains, are peculiar and uncommon, its indications sharply defined and its action prompt and decisive.

**Characteristics.** Persons with blue eyes; light, flaxen hair, light eyebrows; thin, white, fair, delicate skin; blonde, red-cheeked, scrofulous girls; very sensitive nervous organization, but lacking the precocious mental activity of Belladonna.

Quick mental comprehension.

CHEST PAINS RUN UPWARDS.

Swelling and induration of glands (parotid, submaxillary, thyroid, testes); after measles, scarlatina, diphtheria; stony, hard and unyielding, but as a rule not prone to suppuration (see Carbo. an.—in black-eyed patients, Iod.).

Sensation of cobweb on face (Bar., Bor., Calad., Graph., Ran. s., Sumb.).

Continued yawning with respiratory affections.

Diphtheria: beginning in bronchi, trachea or larynx and extending upwards. Diphtheritic or membranous croup.

After symptoms have disappeared, great weakness and prostration (Ars.). Fan-like motion of alæ nasi (Ant. t., Lyc.).

"On shore": Sailors suffer with asthma (better at the sea-shore, worse in the mountains, Med.—Nat. mur. and Syph. the reverse).

Right side most affected.

**Aggravation.** Touch; pressure; night (asthma, cough and dyspnœa); walking; dust, smoke, cold air.

"Symptoms aggravated first part of night, are ameliorated after midnight."—*Hering.*

**Amelioration.** Motion; after shaving (cold sensation in larynx—worse after shaving, Carbo an.).

**Larynx and Trachea.** Hoarseness: acute and chronic. *Hoarseness from overheating;* almost complete aphonia in the morning until after long-continued coughing, relieved by a slight expectoration (Alum.); sore pain in larynx.

Voice: hoarse; husky; aphonic, cannot speak clearly; weak and soft, with raw, scraped sensation in throat.

Hoarseness: larynx painful; dry, rough, barking cough; snoring inhalation; worse in evening.

Cold sensation in larynx, with cold feeling when inspiring, after breakfast; better after shaving (see Carbo. an.).

Sensation of coldness in larynx (Rhus, Sulph.).

Sensation as if air passages were full of smoke.

Rattling in larynx during breathing and coughing, fears suffocation from mucus in larynx (from mucus in bronchi, Ant. t., Carbo. v.).

Painful soreness in region of hyoid bone.

**Respiration.** Sensation of constriction impedes respiration; cannot inspire deep enough; must sit up in bed at night (Ars.).

Oppression of chest, with palpitation.

Great dyspnœa; as if from vapor of sulphur; as if air passages were full of smoke.

Asthma in a girl of 16 for ten years, after measles, unable to ascend steps or walk rapidly without exhaustion; cured with five doses of 30th.

Sensation as if breathing through a sponge in the throat.

**Cough.** Dry, rough, barking; hoarse, crowing, suffocative, croup-like; from tickling in throat pit; wheezing, whistling, spasmodic, with rattling in larynx.

Cough caused by: tickling in larynx; *deep inspiration;* scraping and rawness in larynx; tickling in the trachea on inspiring.

Cough: with hoarseness; with rattling breathing; with sudden paroxysms of suffocation on swallowing; with excruciating pain and anxiety.

During cough: sore pain in chest; whistling inspiration; sensation of sulphur vapor in throat; as if chest were full of smoke; dullness and pressing headache; lachrymation and contraction of eyes; much rattling in larynx, danger of suffocation from accumulated mucus.

Cough aggravated by: exercise or violent motion; dust, smoke, or cold air; entering a warm room (Bry.).

Sweat after the paroxysm of cough.

**Chest and Lungs.** *Cutting, stitching pains,* RUNNING UPWARDS.

COMPLAINTS BEGIN IN BRONCHI AND ASCEND TO TRACHEA, LARYNX AND THROAT.

Unbearable, violent, cutting pain under last ribs of left side, from below upwards, as if it would kill her: valvular disease.

Violent palpitation; cannot lie on right side (must sit up or lie on right side, Lach.—better on right side, Lyc., Phos.—see Tab.).

Sharp stitches in right chest, especially when walking rapidly: stitches in upper part of chest.

Sticking pain in left side of chest, running upwards towards left arm.

Paralytic drawing pain through left chest, toward scapula and into left arm.

Sensation of weakness and exhaustion in chest (chest so weak he cannot talk, Stan.).

Hypertrophy of heart in young growing boys, from violent gymnastics (in young girls from calisthenics, Caust.).

**Expectoration.** There is much rattling of mucus in all chest affections in which Bromine will be indicated, but it is chiefly confined to larynx and trachea and the expectoration is neither marked nor profuse. (Compare Ant. t. and Ipec.).

Sputa: scanty; white, whitish-yellow, or yellow mucus loosened with difficulty; pure, dark, coagulated blood; purulent, sometimes bloody; loose, bluish, granular, followed by attacks of dyspnœa and dry cough.

Cough day and night, sounds loose, but no expectoration.

**Relation.** In croup and croupous affections of the larynx *Bromine* follows *Iod.*, *Phos.*, *Spong.*, especially in the blue-eyed patient.

*Bromine* is followed by *Arg. nit.*, *Kali c.*, *Hep.*, and *Lyc.*

Similar to: *Ant. t.*, *Arg. nit.*, *Caust.*, *Hep.*, *Iod.*, *Phos.*, *Spong.*, and sometimes *Sepia* and *Sulph.*

"In all diseases, the differentiation between *Bromine* and *Iodine* may be decided by the former curing the blue-eyed, the latter, the black-eyed patient."—*Hering.*

Has cured goitre of stony hardness after *Iod.* had failed.

## BRYONIA.

The pathogenetic picture presented by this great polychrest is rarely, if ever, found in true tuberculosis. But fibroid phthisis, which commences with plastic exudation within the pleuræ—the tubercular nodules and sacculated cavities soon following the pleural adhesions—constitutes by far the larger proportion of the tubercular pulmonary affections. In fact, this form is so common, that Leaming says: "I believe that nine-tenths of all the forms of phthisis commence with inter-pleural plastic exudation, which is removable, when recent, by proper management." Here it is, that Bryonia, by its wonderful power over the affections of serous membranes, is of inestimable service. If given when first called for by the totality of the symptoms, it will in the majority of cases prevent the effusion; but if it has already taken place, Bryonia facilitates the immediate re-absorption of the plastic exudation, thus preventing the subsequent tubercular deposits, their dangers and complications. If the symptoms call for Bryonia, we need not wait to diagnose exudation before exhibiting the remedy; prevention is better than cure.

**Characteristic.** Adapted to persons of a gouty or rheumatic diathesis; to persons prone to so-called bilious attacks, exceedingly irritable, inclined to vehemence and anger; with dark or black hair, dark complexion, and firm muscular fibre.

"Indicated in light complexions, but more in dark."—*Hering.*

Affects most prominently the right side of chest and the middle and lower portions of right lung. Inflammations that have become localized and advanced to the stage of serous effusions.

Pains are stitching, tearing; worse at night; greatly aggravated by motion, and relieved during rest. The parts which are the seat of subjective pain become subsequently sensitive to external pressure, and then red and swollen.

Very irritable; easily inclined to anger; anxious, peevish, hasty disposition.

After getting angry: chilly, or a red face and heat in head; ailments from chagrin, mortification, anger, violence, especially when attended with chilliness and coldness (Col., Staph.).

In delirium: talks constantly about his business; desires to get out of bed and go home (Actea, Hyos.).

Headache: when stooping, as if the brain would burst through forehead; from ironing; on coughing; in morning after rising or on first opening the eyes; commencing in morning and gradually increasing till evening (Nat. m.); from constipation, with dull pain in forehead; gastric, rheumatic, congestive, with vertigo, heaviness, pressure and rush of blood to head; relieved by rest, and closing the eyes.

Vicarious menstruation; epistaxis and checked menses, or epistaxis when menses should appear (Phos.).

Desires things, immediately, which are not to be had, or which when offered are refused.

Great thirst, for large quantities, at long intervals.

After eating: pressure as from a stone at pit of stomach, relieved by eructations (Ars., Cal., Mer., Nux., Sep.).

Gastric derangements: after old sausage; old cheese; cabbage; saurkraut; turnips; potatoes; salads; fruit; milk, etc.

Faintness and nausea: in morning; on getting up; when rising up in bed; from slightest motion.

Constipation; no inclination whatever (Op.); stool large, hard, dark, dry as if burnt.

Complaints: when warm weather sets in after cold days; from cold drinks or ices in hot weather; after taking cold or getting hot in summer.

**Aggravation.** Motion; exertion; in morning (Nux v.); during hot weather; touch; cannot sit up, gets faint or sick, or both; warmth, warm food; going from cold into warm air (reverse of Phos.).

**Amelioration.** Lying, especially on painful (right) side (Cal., Ign., Puls.—Worse on painful side, Ars., Hep., Iod., Kali c., Nux m., Sil.); rest, by keeping perfectly quiet; cold, eating or drinking cold things.

**Larynx and Trachea.** *Voice hoarse and rough;* nasal or raised, worse in the open air.

Hoarseness: especially in open air; after measles; with singers; with inclination to sweat.

Tickling in larynx, with dry, hacking cough.

A scraping irritation in trachea and at bifurcation of bronchi, causing dry cough.

Sensation of vapor in the trachea; when going from the open air into a warm room causes cough and a feeling as though he cannot inspire enough air.

Tough mucus in the trachea, loosened only after frequent hawking.

**Respiration.** Cannot take a long breath on account of stitches in the chest (Bor.).

Shortness of breathing aggravated by the slightest motion.

Breathing: quick, difficult, anxious; painful, caused by stitches in chest, compelling to sit up; oppressed, impeded by fear of stitches in the chest.

Constant inclination to take a deep inspiration; to sigh and sigh deeply (Ign.).

Breathing worse from motion; better from expiring, in cold air, and from drinking cold water.

**Cough.** *A dry cough* is the characteristic of Bryonia.

*Dry cough, as if coming from the stomach,* with a crawling and tickling in pit of stomach.

Cough: dry; spasmodic; chiefly at night; after eating and drinking (Nux—relieved by eating or drinking, Spong.—By a sip of cold water, Caust., Cup.); on entering a warm room; from a deep inspiration; excited by nausea, or by creeping or tickling in stomach.

Cough: *with stitches in sides of chest; with headache as if head and chest would fly to pieces;* with involuntary discharge of urine (Caust., Puls., Verat.); with rawness in larynx; with red face; thirst; sneezing; worse from motion, talking, laughing, eating and drinking (see Dros., Phos.); with gagging, without nausea.

Cough, with vomiting of food (Dig., Dros., Fer., Fer. phos., Rhus).

Cough, at night in bed, *compelling one to sit up at once* (Hyos., Puls.—Worse from sitting up, Kali c., Zinc.). While coughing, must press the chest with hands for relief (must sit up and hold the chest with hands, Nat. s.,—must hold the head with hands, Nic.).

During cough: dyspnœa; catching for breath; pains in chest relieved by pressure; bursting pain in head and chest; stitches in brain, throat, chest, epigastrium, hypochondria; sore pain in epigastrium and abdominal muscles; nausea and vomiting of food; sneezing, lachrymation, toothache; involuntary urination.

The cough of Bryonia is prone to occur in violent paroxysms which are often attended with nausea, retching or vomiting, greatly aggravating existing chest or head pains; or producing the characteristic sensation as if the head and chest would fly in pieces. In pleuritic complications the cough is dry, short, hacking, though there may be expectoration of mucus or blood-streaked mucus after long coughing.

**Chest and Lungs.** *Stitches in the chest;* aggravated by coughing, breathing, moving.

Stitching pains: in right chest between third and fourth ribs; in lower half of right lung, in front; in upper part of chest through to shoulders; below right nipple from within outward, only on expiration; in the sternum on coughing.

Tearing stitches in left side of chest (infra-mammary region), extending from behind forward (from before backward, Sang.).

Stitches, soreness and burning pains in chest.

Constriction of chest; inclination to breathe deeply, yet unable to do so on account of pain and constricted feeling (as if the chest were stopped and could get no air, as if something were being distended which could not be completely accomplished).

**Expectoration.** Sputa: scanty, not frequent, difficult to detach; yellow, yellowish-green, streaked with blood or mixed with coagulated brownish blood; brown, like liver; rusty, bloody, tenacious, gelatinous; tough, difficult to separate, falling in a jelly-like lump, light yellow or soft brick shade; thick mucus or blood clots; of a flat, unpleasant taste; often cold (like Cor. r., Nit. ac., Phos.).

**Relations.** Complementary: *Alumina, Rhus tox.*

*Bryonia* follows well after; *Acon., Amm., Nux v., Op., Rhus.*

After Bryonia: *Alum., Ars., Kali c., Phos., Puls., Rhus, Sulph.*

Hahnemann says: "In violent, acute diseases, characterized by a high irritability of the system, a pellet of the

30th potency will be found sufficient for the cure. In a very few cases a full drop of the 30th potency may be necessary, but never a drop of the tincture. I have learned this gradually by experience."

After improvement sets in under a dose of Bryonia, it should never be repeated so long as improvement continues.

## CALCAREA.

Like all the great antipsorics of Hahnemann it is in the general or constitutional, rather than in the local or specific symptoms, that the most characteristic indications for Calcarea are to be found. These stand, like sentinels on a watch-tower, sounding the alarm on the approach of grave constitutional complaints. And the minor symptoms, if they exist, will be found in harmony with them, for around these general indications as around a pivotal centre, the specific symptoms of localized disease will be found revolving.

The constitutional characteristics are chiefly indicative of the psoric diathesis and point unmistakably to the imperfect digestion and impaired assimilation out of which the long train of scrofulous, rachitic and tuberculous affections are developed, in the treatment of which Calcarea manifests its wonder-working curative power. Moreover, the constitutional peculiarities of infancy, childhood and adolescence frequently form the surest indications for the complaints of the adult, especially in diseases of the lungs, and should always be included in the anamnesis; in fact, no totality of the symptoms can approach completeness without it. Here it is that Hahnemann's minute instructions in the taking of the case, when fully and completely followed, yield such brilliant results; results which those who do not strictly follow his method can never know. The large, fat, unwieldly baby; the tardy and defective ossification, manifested in the open fontanelle and delayed and difficult dentition; the profuse sweating of the head during sleep; the enlarged abdomen; the rapidly growing youth of either sex, who at the age of 15 or 16 have attained full growth; the frequent attacks of nasal hæmorrhage, more especially in boys; the too frequent and too profuse menstruation of girls after this function becomes established; form some of our most valuable and reliable indications in the complaints of after life, provided the existing symptoms do not clearly point to another remedy. How frequently do we meet women in middle life, or at the climacteric, who have been debilitated by too frequent and too prolonged menstruation, too rapid child-bearing or frequent miscarriages, until anæmia or disease of the lungs has resulted? Here, too, we can go back to the condition of girlhood and find in Calcarea our simillimum.

**Characteristic.** Best suited for persons of rather light or fair complexion, blond hair, blue eyes, fair skin; weakly, timid persons, with pale face and disposed to grow fat, corpulent, unwieldy; scrofulous constitutions.

Especially adapted to: sucklings and children who become thick and gross, as if fat, but are pale and unhealthy; with red cheeks, flabby muscles, who sweat easily and readily take cold in consequence; large heads and bloated abdomens; delayed closing of fontanelles and sutures; weak and crooked legs; diseases incident to dentition.

Children who are self-willed; fair and plump; head sweats profusely while sleeping, wetting the pillow far around (see Sil.).

Itching of the scalp; children, when disturbed in sleep scratch the head on waking.—*Dunham.*

Vertigo; on ascending a height; on going up stairs is dizzy, out of breath, has to sit down (vertigo on descending, Bor.).

During sickness or convalescence of children constant longing for eggs.

"One of the most prominent constitutional indications for Calcarea is a tall and very erect figure—almost as "straight as an arrow" when walking, standing or sitting (lean persons who walk and sit stooped, Sulph.). This erectness, even in their weakness, is very striking, and once seen will rarely be forgotten. (Per contra, short and very fat people, when symptoms correspond, are often good subjects for this remedy.)"—*Gregg.*

For the two extremes of stature: the tall and erect and the short and stout. The two extremes of life: the aged and the very young.

Lung diseases of tall, slender, rapidly-growing youth (Cal. p., Phos., Phos. ac.): Oftener the guide to the true remedy for that person in the diseases of adult and middle life than Phosphorus.

Frequent attacks of epistaxis in boys who grow too rapidly and mature too young.

Menstruation too early, too profuse, too long-lasting; feet constantly cold and damp, feel as if she had on cold, damp stockings; relapsing flow, least mental excitement causes profuse return (thinks she is "almost well" when the flow returns again and again, Sulph.); subsequently have amenorrhœa, anæmia, chlorosis with scanty or suppressed menses (Puls.).

Very sensitive to atmospheric changes—"take cold easily"; to damp, cold air; the least cold air seems to penetrate through and through.

Complaints which arise from impaired digestion, defective assimilation, delayed ossification; children have difficulty in learning to walk, no disposition, will not even try (see Sil.).

Longing for fresh air, which inspires, benefits, strengthens.

Muscles easily strained from over-lifting (Carbo an.).

Fears she will lose her reason, or that people will observe her mental confusion (Melilotus).

Chronic dilatation of pupils; in children or at puberty.

Deafness after the abuse of Quinine.

Complaints from working while standing in cold water, symptoms reappear or are made worse; potters and brickmakers who work in wet clay; gardeners and fruit growers handling cold vegetables and fruit (Mag. phos., Zinc.).

Pit of stomach swollen like a saucer turned bottom up; painful on pressure.

Feels better in every way when constipated.

Frequent, nocturnal, involuntary emissions in tuberculous subjects, can rarely be relieved without Calcarea.

Acts most prominently on right lung, upper and middle third (middle and lower third, Bry.).

**Aggravation.** Cold, damp air; raw, damp winds; in wet weather; washing, standing or working in cold water, cold clay, handling cold fruits or vegetables (Zinc.), getting wet (Rhus); ascending heights, climbing mountains, going up stairs; exertion, physical or mental, as walking, talking, writing; morning, evening, after midnight; touch, noise, mental excitement.

**Amelioration.** In dry air, dry warm weather; after breakfast. Lying ón the painful side (Bry., Ign., Puls.,—on right side, Phos.). When constipated.

**Larynx and Trachea.** *Painless hoarseness*, can scarcely speak; worse mornings and in open air (worse mornings, Carbo v.); persons who have to talk a great deal become subject to hoarseness (from over-use of voice, Arum).

Voice *hardly audible;* rough in morning, relieved by hawking; the larynx becomes dry; with severe burning in throat; with nightly cough: larynx raw, rough, as if lined with mucus.

Whistling in larynx after lying down evenings.

Talking or speaking: debilitates; aggravates cough and headache; produces rawness, pain or weakness in chest. Habitual croup in scrofulous teething children; one of the few remedies that will prevent a return.

Stone-cutters' consumption; ulceration of larynx, trachea, bronchi, lungs; necrosis of laryngeal cartilage.

Sensation of dust or feather-down in larynx, trachea, lungs (Bell.), causing a tickling irritation, producing cough.

**Respiration.** SHORTNESS OF BREATH ON GOING UP THE SLIGHTEST ASCENT; *on going up stairs; ascending a height; walking* (Mer.).

*Loud breathing through the nose.*

Breathing: difficult, awaking with anxiety; oppressed, relieved by throwing the shoulders back; nocturnal tightness of, with heat, apprehensive anxiety, restlessness.

Tightness of chest, with hoarseness.

Stoppage of breathing when stooping or walking against the wind.

Dyspnœa: with tightness of chest; with stitches in chest; tight feeling and anguish; occasioned by cough.

On inspiration: stitches deep in the right chest; sharp stitches in left side; cutting in chest; pressure on chest; chest painfully sensitive; tearing or stitching, as of needles, in abdominal muscles; single severe stitches in upper part of back; cutting pain at last ribs from within out; irritation to cough.

During breathing: stitches in chest most severe; pain in liver; pressive pain in spine; painful shocks in right side of back.

Mucus rattles in chest on expiration, worse when lying and in the evening.

Tightness in chest, as if full of blood, with not room to breathe (sensation of emptiness, Stan.).

**Cough.** Cough induced by playing on piano; every note she struck seemed to vibrate in her larynx.

In children; during the entire day a constant, dry, hacking cough; from enlarged tonsils, or as if involuntary from habit.

Cough: *dry, especially at night;* with rattling in chest and bronchi; in morning, with yellowish expectoration; violent, first dry, afterwards with profuse salty sputum; with pain, as if something had been torn loose from larynx; during or after eating (Bry., Nux,); dry at night, loose by day; worse on walking; after exanthemata, variola, measles, scarlatina.

Cough: caused by a sensation of plug, which moved up and down in throat (feels as if a tough membrane moved about, but would not loosen, Kali c.); by a sensation of dust in the larynx (Bell.—As from vapor of sulphur, Ars., Cinch.).

*Dry cough in early morning on rising and in early evening in bed.*

Cough dry before midnight, loose after; with pains in chest and profuse thick yellow sputa.

Cough at night, while asleep, with expectoration only during the day (expectoration only at night, Ant. t., Staph.); short, concussive, with itching in the larynx (itching in chest behind sternum, Iod., Phos., Puls.); dry at night, loose by day; dry, tickling, very troublesome at night, at different hours.

Dry, tormenting cough, chiefly at night, raising only with great difficulty a scanty, white, frothy, gluey or dirty-looking putrid sputa.

During cough: *pain and rawness in chest;* pressure in chest and stomach; pain in chest as if tearing something loose; pain in inguinal hernia; catching for breath; gagging with cough, evening or night (Bry.); headache; palpitation and throbbing of arteries; convulsions; sweat; vomiting of sweetish matter; rattling of mucus.

**Chest and Lungs.** SORE PAIN IN THE CHEST, AS IF BEATEN (Arn.)*; the entire chest is painfully sensitive to touch and on inspiration.*

Oppression of the chest, as if too full of blood; at night with heat, restlessness and thirst; with coryza; with pain in back; during damp weather; with constriction of chest; relieved by throwing shoulders back.

Chest sore and raw, especially infra-clavicular region; aggravated by touch and deep inspiration.

Stitches in chest: when lying on the affected side; from deep inspiration; in sides of chest when moving; with difficult breathing; acute, darting from the left into the right lung; from left chest into the throat; from left chest into the left submaxillary gland; dull pain or numbness behind the third or fourth rib, right side; through the chest from before backwards; in the left side of chest on every inspiration, disappearing by rubbing; concussive, from hepatic region.

Infra-clavicular depression, "falling in" of chest walls.

"Whole chest intensely painful to touch."—*Carleton Smith.*

**Expectoration.** Hæmoptysis; with constitutional concomitants.

Sputa: white, gray, yellow, frothy, gluey, dirty-looking, pus-like, bloody; tasting flat, *sweetish*, salty, sour, *like ink;* of thick mucus; *yellow, fetid*; *gray-yellow, of putrid odor*, muco-purulent; profuse, copious, albuminous mucus exhausting and emaciating patient; of blood when coughing and hawking; viscid, loosened with difficulty; pus-like, bad smelling; in mornings, during day, but none during night.

"Expectoration falls to the bottom in water, with a trail of tough mucus behind like a falling star."—*Fellger.*

In consumption occurring in persons of a strumous or scrofulous diathesis, the mucous membrane of the air passages becomes rapidly hypertrophied, bleeding easily and often profusely.

"In young consumptives of a Calcarea diathesis where abscesses form, the pus having a fetid or putrid odor, after the pus is discharged Calcarea in a high potency may effect a complete cure."—*Guernsey.*

**Relations.** Complementary: *Belladonna, Calcarea ars.*

Calcarea follows well: NIT. AC., SULPH., *Cham.*, *Cinch.*, *Con.*, *Cup.*, *Nux v.*, *Puls.*

Calcarea is followed by: KALI B., LYC., *Agar.*, *Bell.*, *Nat. c.*, *Phos.*, *Sep.*, *Sil.*

Correlative: *Cal. ars.*, *Cal. phos.*, *Fer. phos.*

Hahnemann says: "*Calcarea* is a long-acting remedy. It generally acts well after *Nitric acid*, when the action of this drug, although apparently homœopathically indicated, had been rather unfavorable; on the other hand, *Nitric acid* relieves the unpleasant symptoms of the homœopathically chosen *Calcarea*, and imparts to its action a beneficent character. *Calcarea* is frequently useful after *Sulphur*, especially where the pupils are habitually dilated.

Calcarea, when indicated, may be often repeated with children—the younger the child the more frequently may it be repeated. But with aged people it should not be repeated; for if given to them a second time, especially if the first dose benefitted, it is almost always prejudicial."

## CALCAREA PHOSPHORICA.

In general, the phosphate is better suited to persons of dark complexion, dark or black hair and black eyes, while for those of light complexion and blue eyes the carbonate is preferable. But both are adapted to the psoric diathesis, the faulty digestion, the perverted assimilation and tardy ossification, parents of tabes mesenterica, rachitis and tuberculosis; hence, from their numerous analogies a comparison of symptoms is often necessary to obtain the simillimum. Here, too, as in Calcarea, the constitutional symptoms, and derangements of health in childhood and adolescence, are among our surest indications for the diseases of adult life, and should be included in every anamnesis. Like Silicea, Calcarea phos. appears to prefer the deeper tissues, the osseous structures; and like Ferrum phos. is more frequently called for in acute than chronic affections of the lungs. But these broad generalizations are never intended to take the place of a strict symptomatic individualization, which must ever form the basis of a homœopathic prescription.

**Characteristic.** Adapted to the anæmic, child or adult; debilitated; gouty; scrofulous, predisposed to glandular and osseous disease.

Children: during first and second dentition; are thin, emaciated, unable to stand; abdomen sunken, flabby; slow in learning to walk; spine is weak, unable to support the body, the neck unable to support the head; cranial bones thin and brittle; fontanelles and sutures remain open too long, or close and reopen.

Girls at or near puberty; delicate; tall; growing rapidly; with tendency of bones to soften and bend, of spine to curve.

Exposure to damp, rainy, cold, changeable weather, especially in east winds, after a snowstorm or when snow is melting, produces a general feeling of soreness and aching; worse in joints and greatly aggravated by least motion (Bry.—worse in wet, damp weather, or from change of weather, Rhus, Dul., Ruta); every cold causes pains in joints and sutures.

Bronchial, catarrhal, rheumatic complaints incident to cold weather; getting well in spring and returning in autumn (complaints returning every spring, Lach., Carbo v., Mag. phos., Sulph.).

Menses: *every two weeks* (Trill.); too early in young girls, discharge bright red; too late in adults, at first bright red, afterwards becoming dark; always too profuse and too long lasting (Cal.).

*Headache of school girls*, with diarrhœa (begins in morning on waking, worse from mental exertion and motion, Nat. m.).

Non-union of bones in fractures (Symp.); promotes callous.

| CALCAREA. | CALCAREA PHOS. |
|---|---|
| For persons of light hair, blue eyes, fair skin and fair complexion. | For persons of dark or black hair, black eyes and dark complexion. |
| Pale, weakly, inclined to grow fat, corpulent and unwieldy. | Pale, anæmic, thin, emaciated, muscles flabby, bones soft. |
| Delayed closing of the fontanelles, especially the anterior. | Delay in closing of both fontanelles and sutures; cranial bones thin. |
| Head sweats profusely during sleep, wetting the pillow far around. | Head rarely sweats, but scalp is sore, cold crawlings, coldness on occiput. |
| In chronic complaints most frequently indicated. | More often indicated in acute diseases of the lungs. |
| Menses: *from three days to a week too early*, too profuse, too long-lasting; the feet constantly cold and damp, as if stockings were damp or wet; returns profusely on least mental excitement (Sulph.). | Menses: *every two weeks*, too profuse, too long-lasting; labor-like pains before and during; the flow bright with girls, first bright then dark with women; followed by cream-like leucorrhœa for a week. |
| Very sensitive to cold air; seems to penetrate through and through; "takes cold easily" from cold draughts. | Very sensitive to damp, cold, wet weather; damp east winds; after a snow-storm, melting snow; causes pains in joints and general soreness. |
| Chronic dilatation of pupils. | Chronic headache of school girls. |
| Stomach and abdomen full, bloated, distended. | Stomach and abdomen flabby, emaciated, shrunken. |
| Slow in learning to walk; child is fat, corpulent, gross, unwieldy. | Slow in learning to walk; spine so weak unable to support the body; legs easily bent. |
| Craving for eggs. | Craving for bacon and ham. |

Lack of animal heat; general coldness of body; cold sweat.

Ailments from grief, disappointed love (Phos. ac.—anger and indignation, Col.; chagrin, mortification, indignation, with reserved displeasure, Staph.).

**Aggravation.** *Exposure to dampness;* cold, changeable weather; melting snow; east winds; *motion;* mental exertion.

**Amelioration.** Lying down; warm, dry atmosphere; in summer.

**Larynx and Trachea.** Hoarseness day and night.

Burning in larynx and back part of tongue.

Must hawk or hem to clear the voice, especially when talking; can scarcely speak without it; worse in damp weather.

Catarrhal affections of larynx in the anæmic, gouty or scrofulous.

**Respiration.** INVOLUNTARY SIGHING (Bry., Ign. Kali c.).

Breathing: more frequent, short and difficult; desire to take a deep breath, to sigh; with pain in chest, shooting to liver; shooting in left chest and right temple.

Suffocating attacks after nursing, crying, *after being lifted out of the cradle* (when being laid in cradle, Bar.).

**Cough.** *Cough: with soreness and dryness of the throat*; dry, with hoarseness; with short breath and pain in a small spot when coughing; chronic, of consumptives who suffer with cold extremities; with stitches in chest.

**Chest and Lungs.** Dull aching in chest, with soreness to touch (Cal.).

Contraction of chest and difficult breathing, evening till 10 P. M., relieved by lying down.

Stitch in left side while breathing.

Burning sensation in chest from below up into throat.

Sharp pain in region of sixth rib, first on right side, later on left fourth and fifth rib, coming and going, takes breath away; worse on deep inspiration.

Sharp pain, as if pierced by an instrument, in upper end of sternum and clavicle.

Soreness of supra- and infra-clavicular region.

Sore pain in sternum; over clavicle and cervical glands.

Chest affections associated or alternating with anal fistulæ; or when fistulæ and fissures are cured (?) with the knife.

**Expectoration.** Cough; with *yellow sputa,* more profuse in the morning.

The expectoration resembles that of Calcarea, but neither so profuse in quantity nor varied in character.

**Relations.** Complementary: *Calcarea, Ruta.*

Correlative: *Carbo an., Tuberculinum.*

Is followed well by: *Sil., Sulph., Tuber.*

It follows: *Aran., Ars., Ars. iod., Iod., Mer., Phos.*

Occupies a place midway between *Calcarea* and *Phosphorus.*

The benefit claimed for the hypophosphates in the treatment of tuberculosis, has no doubt been due very largely to Calcarea phos.; but much more would have been accomplished by the potentized remedy.

## CARBO ANIMALIS

Exerts a profound influence in early life over affections of the glandular and lymphatic systems, the cell-producing functions of which are so intimately connected with the process of nutrition; and in the later stages of tubercular and malignant glandular affections we are equally grateful for its healing powers.

**Characteristic.** Best suited to the scrofulous constitution, especially of the young; or the venous plethora of elderly people marked by blue cheeks, lips and fingernails; persons inclined to blueness of the skin, hands and feet, the distended veins show through the skin; those who are greatly debilitated by exhausting diseases, circulation feeble, blood stagnates and vital heat sinks to a minimum; persons who become ill from very slight causes, owing to weakened resistance of vital powers.

Glands: hypertrophied, indurated, painful; of neck, axillæ, inguinal region, mammæ, are swollen and the pains are lancinating, cutting, burning (Bad., Con., Iod.).

Simple glandular affections are prone to become malignant: benignant change into ichorous suppurations.

Parts easily strained from lifting even small weights (Cal.); straining and overlifting, even if slight, cause great debility.

Joints are unnaturally weak; foot turns under in walking; weak ankles in children trying to walk (compare Cal. p., Sil.).

Weak, sore, empty feeling at pit of stomach, not relieved by eating; digestion weak from bad effects of loss of vital fluids, especially excessive lactation (Cinch.).

Menses too soon, last too long, flow dark, but not profuse; feels so exhausted during flow that she can hardly speak (can hardly stand, Coc.).

Sweat: *offensive night sweats;* stains linen yellow; fetid, debilitating, exhausting, profuse (Psor.); most profuse on thighs and feet, in hollow of knees, when walking, eating or on the slightest exertion (Bry., Cinch., Thuja have profuse debilitating sweat, but lack the offensiveness of Carbo an. or Psor.).

Aversion to cold, dry, open air.

Affects right side most prominently.

**Aggravation.** Cold, dry, open air; damp or wet weather; after shaving (better after shaving, Bro.); from touch; after midnight (Ars.); during menses.

**Amelioration.** Warmth.

**Larynx and Trachea.** Hoarseness, *worse evenings;* loss of voice during night (Carbo v., Phos.).

Hoarseness, cough, and very fetid and debilitating night sweats.

Hoarseness and rawness in morning after rising, with dry cough.

**Respiration.** Suffocating dyspnœa, with anxiety.

Oppressive breathing; in morning and after eating.

As soon as patient closes his eyes he feels as if he was smothering.

**Cough.** Dry cough: from tickling in right side of chest, or lying on right side; only at night when lying on right side; severe, dry cough, shakes abdomen as if all would fall out, must support bowels; mornings on rising and nearly all day; with loose râles until something is expectorated; with soreness in abdomen (Con., Hyos., Puls., Nux.).

"Suffocating hoarse cough, producing shaking of the brain, as though the brain were loose in the head."—*Farrington.*

**Chest and Lungs.** Sharp, burning stitches in chest, especially in right lung.

Sensation of coldness in chest (Ars., Brom., Sulph.); from front through to back.

Burning in chest, with pressive pain.

"Sympathetic" cough from induration or carcinoma of uterus (Con.).

**Expectoration.** *Green or greenish.*

Sputa: green, greenish, dark brown, tough, syrup-like, of an extremely disagreeable taste and very offensive odor.

Carbo animalis is frequently called for in the late stages of pneumonia with beginning of suppuration, especially of right lung; in bronchitis, with loose mucous râles and greenish or badly smelling expectoration; in lingering pleurisy with hectic and typhoid symptoms from effusion; and in tubercular phthisis of right lung from pleuritic adhesions, especially after a cavity has been detected, with the characteristic perspiration.

## CARBO VEGETABILIS.

Hahnemann says: "Physicians used Carbo as a mouthwash when the mouth smelled badly, or they applied it to old, fetid ulcers, and the smell disappeared almost instantaneously. When taken internally, in doses of 8 or 12 grains, charcoal removed the fetid odor of the feces in the fall dysentery. This use of the vegetable charcoal was merely chemical, not dynamic, not penetrating into the inmost substance of the vital forces. The bad smell of the mouth, ulcer or dysenteric feces returned in a few hours. There are many remedial agents which, in their crude form, appear non-medicinal and powerless. Their medicinal virtues are latent and can be only elicited by trituration and succussion as taught in Vol. I, Chronic Diseases."

This external use, and its internal employment for gastric flatulence, is based solely upon its chemical properties; and in Hahnemann's early experiments the cruder preparations failed to yield any important symptoms. It was only after extended potentization that the symptoms on healthy persons steadily increased, so that to the proving of the triturated (potentized) vegetable charcoal we are indebted for the greatest discovery in the history of medicine, viz., *that the dynamic is the only curative force in drugs.* This great discovery of Hahnemann is certainly destined to revolutionize medical science, as already it has revolutionized the Art of Healing.

**Characteristic.** Symptoms of imperfect oxidation of blood (Arg. nit.).

For the complaints of persons, either young or old, who have suffered from exhausting diseases—diarrhœas, hæmorrhages, profuse sweats or suppuration—(exhausted from loss of vital fluids, Cinch., Fer., Phos.).

Diseases of venous system predominate (Sulph.); slightest irritation causes bleeding from venous capillaries (slight wounds bleed profusely, Phos.); defective capillary circulation causes blueness of skin and coldness of extremities, especially from knees to feet; vital powers nearly exhausted; *desire to be constantly fanned.*

Great foulness of the secretions; exhalations and discharges fetid, offensive (Bap., Psor.); great prostration.

Lymphatic glands, swollen, indurated, suppurating; in scrofulous or syphilitic persons; burning pains are predominant.

Weak digestion; the simplest food disagrees. Excessive accumulation of gas in stomach or intestines, especially in stomach (in lower intestines, Lyc.); after eating or drinking, sensation as if stomach would burst; temporary relief from eructations.

Want of nervous irritability; of susceptibility to medicinal action; of reactive vital power (when the indicated remedy fails to permanently improve, Psor., Sulph.).

Awakens often from cold limbs, especially cold knees (Apis).

Hot vertex during climaxis (Cal., Lach., Sulph.).

"Frequent, profuse and easy epistaxis, worse at night or in forenoon, followed by pain over chest, and pale face; hoarseness each evening at 5 o'clock."—*Carleton Smith.*

Epistaxis: copious, easy; blood thin and black; face pale before and after every attack; in the aged or debilitated; wants to be fanned or the windows and doors open.

"Adapted to persons of excessive sensibility and to changes of temperature; to cachectic individuals whose vital powers have become weakened; to gangrene of the lungs; to pulmonary phthisis passing from the inflammatory to the suppurative stage."—*Noack and Trinks.*

Ulceration with burning pains; pus offensive, becomes ichorous, or instead of pus emits a bloody serum; bleeds easily from slightest touch (Lach., Phos.).

"Hectic fever; exhaustive night sweats, *profuse, putrid, sour;* sallow complexion and sunken features; vital forces nearly exhausted."—*Hering.*

Bad effects of: over-lifting or straining, never fully recovered; measles, been troubled ever since with asthma or something else.

**Aggravation.** From changes of weather, especially warm, damp weather, south or south-west winds (Euph.); in protracted sultry heat of summer or autumn; fat food, butter, pork (Puls.); mornings; abuse of Quinine, especially suppression of chill and fever or acute catarrhs.

**Amelioration.** Cold air; from being fanned; eructations.

**Larynx and Trachea.** PAINLESS HOARSENESS; GREAT ROUGHNESS IN LARYNX, WITH DEEP, ROUGH VOICE, WHICH FAILED ON EXERTING IT.

Hoarseness: chronic; worse evenings, from damp evening air, warm wet weather, from talking; morning aphonia, worse in damp, cool weather; and rawness.

"Hoarseness in the evening; nosebleed at night."—*Raue.*

The larynx becomes raw and sore from clearing his throat so often in the evening.

Hoarseness following croup, bronchitis or measles.

Severe pain in larynx and region of thyroid cartilage, as if ulcerated, when coughing.

The laryngeal irritation causes sneezing.

Tingling, tickling, scraping, dryness or ulcerative pain in larynx.

Bronchial catarrh, hoarse mucous râles; chest and ribs sore, as if bruised (Arn.); blue nails, cold sweat and cold extremities.

**Respiration.** *Breathing short, with cold hands and feet.*

DESIRE TO BE FANNED; *must* have more air; wants the doors and windows opened.

Breath is short and chest tired, on waking, when walking; loses breath on turning in bed, or when going to sleep.

Great dyspnœa; from oppression of the chest, in the evening when lying, worse when sitting; compelling slow walking, with great anxiety, but not restless (very restless, Ars.).

Respiration ceases entirely when falling asleep. (On falling asleep respiratory movement ceases, and is not resumed until awakened by the suffocation resulting, Grind.).

Difficult breathing, fullness of the chest, and palpitation on slightest motion.

Shortness of breath, with anxiety of chest; unable to sit, obliged to walk about constantly (Ars., Rhus).

Impelled to breathe deeply, yet breathing deeply causes fatigue in head, neck, chest, back, abdomen.

**Cough.** Caused by: itching in larynx (Cal.); itching from throat to chest (itching in chest behind sternum, Con., Iod.); constant roughness and crawling in throat; a sensation as of vapor of sulphur; motion; walking in open air; lying down (Ars., Dros., Pinus s., Puls., Sang., Sep.); talking (Phos.).

Cough: dry, hard, continuous; hollow, spasmodic, in short, hard attacks; at times dry, painful, at others with purulent, slimy, salty or offensive sputa; with copious sputa night and morning; with painful stitches through head (Bry.); worse going from warm to cold places (Phos.,—reverse of Bry.); evening in bed; from eating or drinking (Nux), especially cold food or drink: during supper; causing vomiting and retching in the evening; upon persons approaching or passing.

"Cough in hard spells, not ceasing until masses of offensive sputa are expectorated."—*Raue.*

"Cough worse by day and in the open air; worse during supper; soreness of the chest and heat of the body when coughing; sensation at night as if choking from mucus in the throat when coughing, ameliorated by sitting up or moving."—*Berridge.*

"Violent cough, with discharge of a quantity of yellowish pus, accompanied by stitches in the left hypochondrium when breathing (in right, Kali c.)."—*Brigham.*

**Chest and Lungs.** *Sensation of weakness and fatigue of the chest;* chest feels weary on waking.

"Breath is short and chest tired on waking."—*Dunham.*

*Severe burning in the chest, as from glowing coals.*

Right chest: pressive pain in upper right chest, extending through to right shoulder blade; violent, dull stitches, like shocks, deep in lower part of right chest; sticking, tearing, stitching pains in right chest.

Left chest: oppressive, tearing pain in left chest. Pain in left lung, hard, heavy, constant, confined to larger bronchi; great susceptibility to cold; after inhalation of great heat from a fire. In left middle chest painful spot size of a dollar. Severe stitches below left breast; unable to sleep or walk on account of them.

Aching and tearing in chest, extending to hips.

Pain in chest from drinking cold water.

Asthma: coming on either after midnight or during afternoon sleep: has to get out of bed and sit by table for relief; better in summer.

Asthma: inveterate, of old people, worse early in morning, relieved in cold air.

**Expectoration.** Sputa: tough and greenish; yellow pus; yellow-green or purulent; brown, bloody; slimy, tenacious, whitish or watery mucus; sour or salty taste; offensive, in masses; coughs day and night, with burning and pressing under the sternum; expectorates yellow, purulent matter and tubercles.

Incipient phthisis, septic, with prostration, sunken features, sallow complexion, emaciation and cold sweat.

Hæmoptysis; burning in chest, face deathly pale, skin pale, pulse slow, wants to be constantly fanned.

**Relations.** Complementary: *Kali c.* in throat, lung and gastric complaints.

*Carbo v.* is also complementary to *Phos.* in affections of the throat and chest when attended with great prostration as a sequel of acute disease.

Is followed by: *Ars.*, *Cepa*, *Cinch.*, *Dros.*, *Kali c.*

It follows: *Bell.* in laryngeal phthisis; *Bry.* in hot weather; *Mer.*, *Lach.*, *Kali c.*, *Nux*, *Sep.*, *Sulph.*

Compare: *Caust.*, *Rumex*, in hoarseness; *Op.*, *Psor.* in lack of reaction after well-indicated remedies; *Phos.*, easily bleeding from slightest cause; *Puls.*, bad effects from fats, pork, pastry, quinine; *Sulph.*, acrid odor of menses, offensive dysentery, and mammary erysipelas.

## CAUSTICUM.

The sole credit not only for the discovery of this remedy and its mode of preparation, but for its introduction into the Materia Medica, belongs to Hahnemann. No other school of medicine has yet learned its wonderful antipsoric and sycotic properties. It appears to be pre-eminently suited for that form of laryngeal phthisis of catarrhal origin, which, beginning in the larynx and trachea, gradually extends to the bronchi and terminates in tubercular cheesy degeneration of the apices. But whatever our theory of its sphere of action may be, the symptoms are unique, well defined, and characteristic, and not likely to be easily confounded with any other remedy.

Causticum patients are usually cold, have cold (not damp) feet, and a tendency to perspire when walking in the open air; a great deal of internal chilliness, or chilliness and sweating alternate.

**Characteristic.** "Diseases corresponding to the hydrogenoid constitution of Grauvogl."— *Hering.*

Persons with dark hair, rigid, firm muscular fibre, are most sensitive to its action.

For the torpid, lymphatic temperament; weakly, scrofulous persons, with excessively sallow or yellowish, chalky complexion, subject to frequent attacks of catarrhal affections of the respiratory and urinary tracts, especially those incidental to post-meridian life.

Children with black hair, dark eyes, sensitive, delicate skin; prone to intertrigo during dentition (Cal., Lyc.); or occasional convulsions with the evolution of every group of teeth (Stan.).

Sycotic affections: warts, large, jagged, pedunculated; exuding moisture, easily bleeding; or small, all over the body; especially on *eyelids* (Thuja).

Suppressed scabies or any other chronic scrofulous eruption spends its injurious effects on the nervous system, producing epilepsy, chorea, paralysis. (Compare Psor., Sulph.)

Ailments: mental and nervous, from long-lasting grief and sorrow (Ign.); after suppression of eruptions (Dul., Sulph.); from protracted night-watching, care, trouble (Coc.); from witnessing the sufferings of others.

Melancholy, sad, hopeless; looks upon the dark side of everything; would prefer death to wasting away with consumption.

Irritable, peevish, censorious, irascible, easily displeased, inclined to take everything in bad part; the least thing makes the child cry (Ant. t., Cina, Iod., Sil.).

Constipation: frequent, ineffectual efforts; the stool passes better standing (Aloe, Alum., Med.).

Urine: involuntary; when coughing, sneezing, blowing the nose, walking (Bry., Nat. m., Puls., Scilla, Tar., Ver.); nocturnal, unconscious of it; from paralysis, with constant ineffectual urging; passes so easily is not sensible of it.

Menses: too early, too profuse, and after ceasing a little is passed from time to time for days (Kreos., Sulph.); or too feeble, flow only during the day, ceases when lying down.

At night, restless, cannot get an easy position, nor lie still a moment; must move but motion does not relieve (pain compels him to move, night or day, for relief, Rhus). Cannot cover too warmly, but warmth does not relieve.

Cicatrices, especially burns and scalds, freshen up and become sore again; patients say "they have never been well since that burn."

Paralysis of single parts; vocal organs, tongue, eye-lids, face, bladder, extremities; especially of right side.

**Aggravation.** In dry, cold or clear, fair weather; coming from the air into a warm room (Bry.); cold air; draught of cold air (Cal.); on becoming cold; getting wet; from bathing; walking. "Early morning. Can't walk without great suffering."—*Guernsey.*

**Amelioration.** In damp, wet weather; from warmth in general; *by a swallow of cold water.*

**Larynx and Trachea.** HOARSENESS; WITH RAWNESS, BURNING AND SORENESS IN CHEST; with coryza; worse in morning, with constant scraping and desire to clear the throat; remaining after acute laryngitis; of public speakers and singers from over use of vocal organs (Arum, Graph., Selen.); with dry cough.

Aphonia: *Complete; for several days could not speak aloud;* from over-singing; from straining the voice; from driving in cold; muscles of larynx refuse to act; when he tries to raise the voice it fails or becomes a squeak.

"Hoarseness toward evening, with a dry, tickling cough," is given by Dunham, but the morning hoarseness of Causticum is more characteristic, while Carbo v. and Phosphorus are worse towards evening.

Sense of utter weakness in the muscles of the larynx; sudden loss of voice.

Larynx sore to touch (compare Lach., Phos.).

Dryness in larynx and air passages.

Pressive, constrictive pain in larynx.

**Respiration.** *Shortness of breath;* precedes paroxysm of cough.

Breathing arrested when talking or walking rapidly; must suddenly catch after breath.

Frequent suffocative fits during an inspiration, as if some one constricted the larynx, producing an arrest of breathing, when sitting.

Dyspnœa: with frequent sighing; in morning; with chronic cough; during inspiration; when sitting or lying down (Sinapis—better when lying down, Psor.—can only breathe when standing up, Cann. s.).

**Cough.** "Hoarseness towards evening, with a dry, tickling cough; sensation as if he could not cough deep enough to start the mucus; rawness and tickling in throat-pit; patient inclined to backache, especially in the coccyx." —*Dunham.*

Cough caused by: eating (Nux); by scraping or tickling in the throat-pit; mucus in the throat; a creeping tickling in chest; only on lying down; speaking (Phos.); stooping to pick up anything.

Cough: violent, hollow, racking, with pain in right chest or sensation of soreness in chest; with pain in hip (Bell.); and involuntary spurting of urine (Scilla., Puls., Verat.); dry, a sequel of pertussis; night and morning with adhering mucus; in the day time without, at night with expectoration; awakens from sleep morning and evening; with rattling of mucus; frequent dry tickling.

Dry, hollow, racking cough, in four or five paroxysms, *with a sore sensation in a streak down trachea, where it pains and almost prevents breathing, on every paroxysm of cough.*

Cough: worse from evening till midnight (Hep., Rhus, Stan.); when awaking (Lach.); cold air; exhaling; drinking coffee (drinking anything warm, Stan.).

Cough: *relieved by a swallow of cold water* (better from eating or drinking warm things, Spong.).

"Cough which improves up to a certain point and then remains stationary, getting neither better nor worse."—*Farrington.*

**Chest and Lungs.** *Painful soreness of chest.*

Stitches: deep in chest during inspiration; in chest, extending to scrobiculus; in sternum during deep inspiration and when lifting; deep in chest, going to back; from nipple to umbilicus when breathing deeply; below sternum, with a constant dull stitch in left shoulder joint. The stitching pains are in both sides of the chest.

Tightness of the chest, must frequently take a deep breath; oppression or constriction, as if the clothes were too tight.

Pain in chest, as though raw, prevents from lying down at night; compels to change position, but without relief.

**Expectoration.** The same paralytic condition of the laryngeal muscles—that sense of utter weakness—is again illustrated in the inability to expectorate.

SPUTA CANNOT BE RAISED, BUT MUST BE SWALLOWED: cannot cough deep enough for relief, but after long coughing succeeds in raising it "so far," when it passes into the pharynx and must be swallowed. (Compare *Arn.*, Dros., Kali c., Lach., Mur. ac., Sep., Spong., Zinc.)

Sputa: tightly adhering mucus; acrid, fatty-tasting; heavy, white, muco-purulent, coming away in masses; in later stages, of a heavy, creamy consistence.

**Relations.** Complementary: *Carbo v.*

Is followed well by *Sulph.* in some cases of chronic aphonia; *Carbo v.*, when aggravation changes to evening.

Inimical: the Acids, *Coffea*, *Phos.*

*Caust.* and *Phos.* should never follow each other without an intercurrent remedy.

## CONIUM.

**Characteristic.** Especially suitable for the diseases of old people; old women and hypochondriacal old maids, with rigid muscular fibre; debilitating diseases of old men consequent upon enforced continence or sexual excesses in youth; persons with light hair, easily excited, as well as the opposite condition.

Glandular indurations: of stony hardness (Carbo an., Iod.); of mammæ and testes, especially in persons of a scrofulous, tuberculous or carcinomatous cachexia; after contusions, blows, falls; indurations, the effects of old injuries.

Inability to sustain any prolonged mental effort; memory enfeebled; comprehension difficult. Greatly concerned about little things. Dreads being alone, but avoids society (Kali c., Lyc.); hypochondriasis.

Vertigo: *worse lying down* (on sitting up in bed, Coc.); *when turning over in bed,* as though the contents of the room were turning in a circle; must keep the head perfectly still.

The smallest quantity of spirituous liquors intoxicates.

Intermitting flow of urine; flows in a full stream at first, then stops, flows again, etc.

At every menstrual effort, the breasts (which are usually relaxed) become enlarged, sore, and painful.

**Aggravation.** At night; lying down; cold air; rising up in bed; going from warm room into open air (Phos.).

**Amelioration.** In the dark; when walking.

**Larynx and Trachea.** Larynx sensitive to touch (Apis, Lach.).

*Almost constant irritation to a dry cough, from a dry spot in the larynx, where there is a crawling* (from a dry spot in throat, Actea).

Scraping in larynx, with irritation to cough, and dry cough in evening.

**Respiration.** Shortness of breath, or want of breath: when walking or taking the least exercise; in morning on waking; with constriction of chest.

Asthma: of old people, with tickling cough; in morning, when waking; in paroxysms during wet weather, the face bluish-red; nervous bronchial asthma.

Sensation as if chest did not expand enough; finds it difficult to take full inspirations.

**Cough.** *Unbearable titillation in throat-pit, causing paroxysms of dry cough.*

Cough, caused by: *a dry spot in larynx;* crawling and scraping in larynx; tickling in throat; *itching and tickling in chest, behind sternum* (Iod., Phos., Puls.); enlargement of bronchial glands; irritation of laryngeal and tracheal mucous membrane; going from warm room into the open air (Phos.). Sympathetic during pregnancy (constant, hacking cough during pregnancy, Kali br.,—see Nux m., Sab.); *lying down,* talking or laughing (Dros.—see Phos.).

Cough: dry, teasing, spasmodic; titillating, nightly, hacking; in short spells; persistent, annoying; with violent headache, fluent coryza, oppression of chest and evening fever; recurs every evening at six o'clock, lasting till daylight; with pain in abdomen, which he must hold with his hands.

**Chest and Lungs.** *Sharp thrusts directly through the chest, from sternum to spine, while sitting.*

The clothes lie like a weight on the chest and shoulders.

Stitches: pleuritic; in right chest about nipple, on every inspiration, while walking, not relieved by hard pressure; beneath the ribs; from abdomen to right side of chest; fine, in left side of chest.

Cutting, pressing pains in both sides of the chest, worse from inspiration.

**Expectoration.** Hæmoptysis, especially after masturbation, with weakness or pressing, cutting pains in chest,

Sputa: bloody; copious; purulent; difficult; hardened; of putrid taste, like rotten eggs, especially after measles or scarlatina; *loose, unable to expectorate, must swallow what is raised* (see Caust.); frothy, with yellow nucleus; yellow mucus, in masses; during the day.

**Relations.** Follows well after *Cal., Dros., Ferr. phos., Myr. com.*

Is followed by *Bell.*, *Lyc.*, *Phos.*, *Puls.*, *Rhus*, *Sulph.*

Has relieved the dry cough of pulmonary phthisis when *Hyos*, *Dros.* and *Op.* failed.

Inimical and antidotal: *Nit. ac.*

"This remedy, in order to act beneficially, has frequently to be preceded by some other drugs, and must then be used in the smallest doses (the highest potencies)."—*Hahnemann.*

## CINCHONA.

Cinchona may be called for in every stage of the tuberculous process, from the primary debility consequent upon the loss of vital fluids, to the fully developed anæmia and exhausting perspirations of the closing scene. And in every case the peculiar constitutional weakness, the nervous exhaustion and irritability that result from excessive hæmorrhages or other vital losses, will be found to be the red strand of the remedy. Seldom indicated in the incipient stages.

**Characteristic.** For "swarthy" persons of dark complexion; systems once robust and stout which have become debilitated, "broken down," from exhausting discharges or diseases.

Ailments from loss of vital fluids: hæmorrhages, excessive lactation, seminal emissions, diarrhœa, perspiration, etc., the debility often depending more upon the individual idiosyncrasy than upon the amount of fluid lost.

Excessive sensitiveness and irritability of the nervous system; all the special senses seem too acute; unable to endure the least fatigue, from weakness and debility.

Great debility: from loss of blood; from over-study; trembling; nervous; unrefreshing sleep; sensitive to touch, to pain, to draughts of air; sweats during sleep or exercise.

One hand icy cold, the other warm (Dig., Ipec.,—one foot cold, the other warm, Lyc.).

Excessive flatulence of stomach and bowels; no relief from belching or passing flatus (Lyc., Pod.,—belching gives relief, Carbo v.).

Labor pains cease from hæmorrhage; cannot bear to be touched, not even her hands.

Post-climacteric debility after profuse hæmorrhages; pleuritic effusion and dropsy in old women.

Hæmorrhages: from all the mucous outlets of the body; blood dark or dark and clotted, with ringing in the ears, fainting, loss of sight, general coldness; longing for sour things.

"The exhausting sweats, even the sweat of its peculiar fever, are accompanied by thirst."—*Kent.*

**Aggravation.** From slightest touch; on alternate days; draughts of air; from milk or fruit; at night (many of the complaints, the diarrhœa, pains, and sweat).

**Amelioration.** Warmth; during rest.

**Larynx and Trachea.** Hoarse; voice rough; the tone, both in talking and singing, deep and husky; hollow and hoarse from accumulated mucus.

Stitches with sore and raw sensation in larynx and trachea.

**Respiration.** Cannot breathe with head low.

Breathing: wheezing, crowing, rattling; oppressed and painful; inspiration whistling, slow, difficult; expiration, quick, short, blowing, snoring.

Inclination to take a deep breath (Bry., Carbo v., Ign.).

Wants to be fanned, but not hard, as it takes the breath. (Compare: Carbo v., Bap.)

Oppression of chest, as from fullness of stomach; evenings, lying down; from talking.

Asthma: severe, looks as if dying; worse in autumn and wet weather; as if larynx were filled with mucus, especially towards evening, and at night on awaking from sleep; at 3

A. M., followed by frothy, badly-tasting expectoration. (See Cal., Kali c.)

**Cough.** *Dry, spasmodic, or suffocative night cough, as from vapor of sulphur.*

Cough: caused by laughing; by tickling in the chest; immediately after eating (Nux).

Cough: with stitches in chest; pain in larynx and sternum; during or after measles; first dry, hollow, painful, later with bloody expectoration; dry, with a taste of blood; hacking, with blood spitting and great prostration.

Cough worse: from deep inspiration, talking, laughing; after eating, drinking; light touch of larynx; least draught; moving; lying with head low or on left side; after being awakened; evening, or after 12 P. M.

**Expectoration.** Sputa: of blood, blood-streaked; with taste of blood; of fetid pus; clear, tenacious; slimy, whitish or black; granular during day or evening, none night or morning; with a taste of old cheese.

Hæmoptysis: during cough; with vertigo, eyes feel enlarged; in women exhausted by nursing; of clotted blood mixed with pus; with salty expectoration.

**Chest and Lungs.** *Chest extremely sensitive, cannot bear auscultation or percussion* (Cal.).

Pressive, drawing pain across lower portion of chest while sitting, which causes anxiety; disappears when standing or walking.

Stitches: in right chest up to axilla, prevents bending forward and breathing; violent, in chest just above precordial region, while at rest; in left chest; under sternum; dull in cartilages of left third or fourth false ribs, not affecting respiration; worse during deep breathing and sudden motion.

Pain in side as if beaten, or as from a blow.

Pressure in chest as from violent rush of blood, violent palpitation; sputa bloody; sudden prostration.

Loud, coarse râles, anæmia, great debility; ascites, œdema of legs.

Phthisis: of debauchees, drunkards; from profuse hæmorrhages; loss of vitality; with exhausting night sweats.

**Relations.** Complementary: *Ferrum.*

Follows: *Cal. phos.* (after severe attacks of cholera infantum, impending hydrocephaloid); *Ferrum* (anæmia, chlorosis, etc., exhausting losses of vital fluids); *Ars.*, *Carbo v.*

Incompatible: should not be used after Dig., Selen.

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## DROSERA.

**Aggravation.** After midnight; by warmth; drinking; singing; laughing; talking; weeping; lying down (Con., Hyos., Puls.).

**Larynx and Trachea.** Voice: hoarse, deep, requires exertion to speak; husky; hollow, without resonance; cracked, toneless; only able to speak in a bass voice.

Hoarseness: chronic, persistent; from repeated catarrhal attacks; as a sequel of measles.

*Sensation of a feather in larynx*, exciting cough.

Crawling in the larynx, which provokes hacking cough.

Constriction of the larynx when talking.

Constant tickling in the larynx, causing cough and preventing sleep at night.

Epiglottis in constant motion to and fro, constant inclination to cough; larynx very dry; patients involuntarily support the larynx on coughing or swallowing (Cepa).

Mucus in the larynx, either hard or soft.

Laryngeal phthisis, with hoarseness and rapid emaciation.

"Rough, scraping, dry sensation deep in the fauces (and soft palate), causing a hacking cough with a yellow mucus expectoration and hoarseness, so that he speaks only with exertion in a deep bass voice, with oppression of the chest, as if the air were withheld on talking and coughing, so that the breath could not be expired."*

**Respiration.** *Difficult breathing,* worse after midnight.

Oppression; with every word he speaks the throat contracts; not so when walking.

Sensation as if something in chest prevented exhalation when talking or coughing.

During inspiration: intolerable stitches in the upper part of the chest near axilla, relieved by pressure; severe aching pains in infra-clavicular region, over a small space in lungs, which afterward extended to scapula.

Asthma, particularly when talking, with contraction of throat at every word that is uttered.

Bad, offensive-smelling breath when coughing.

**Cough.** DEEP SOUNDING, HOARSE, BARKING COUGH.

Cough: nervous, spasmodic, sympathetic; of phthisical girls; with retching and vomiting; in evening, immediately on lying down (Hyos.); sounds loose, but nothing comes up; after measles, with bloody and purulent expectoration; with violent pains in chest.

During cough: face blue, pale; stitches in muscles of chest; bleeding from mouth or nose; has to support chest and hypochondria; hoarseness.

Harrassing, titillating cough in children, as soon as the head touches the pillow at night, not at all during the day (Pinus pal.).

Nocturnal cough of phthisis, with severe pains in chest,

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*This condition must be very similar to some forms of the so-called laryngeal phthisis, for which Drosera is the only remedy (provided there is no specific basis, syphilis, psora, etc.). Several older physicians have indeed cured some malignant coughs with this remedy, and found it curative in suppurative consumption, and so have confirmed its (homœopathic) curative power in these diseases.—*Hahnemann.*

purulent expectoration and foul pus-like taste in mouth.

Cough aggravated by: warmth; drinking; tobacco smoke; *after lying down;* laughing; singing; weeping; after midnight or in the morning.

Cough, with constriction in chest, which seems to hold the breath and prevent coughing, with pain in sides, which he must support with both hands, (Bry., Nat. s.).

**Chest and Lungs.** *Severe stitches in chest when sneezing or coughing, must press on chest with hands, for relief.*

Violent, oppressive, stitching pain across chest, passing off during motion.

Burning sensation in centre of chest.

Tightness of the chest, especially when talking, or even uttering a word, relieved when walking.

Oppression, as if breath could not be expelled.

Bronchitis of old age: cough in nocturnal paroxysms; worse lying down; seems to come from abdomen, shaking all the muscles of the chest and body, great exhaustion after; expectoration of yellow mucus or pus; paroxysms from one to two hours apart; emphysema.

**Relations.** Complementary: *Nux vomica.*

Follows well after *Drosera*: *Samb., Sulph., Verat.*

*Drosera* follows: *Cal., Puls., Sulph.*

Compare with: *Bell., Hyos., Pinus pal.* for cough worse on lying down; *Bell., Caust., Chel., Cina, Coc. c., Coral., Cup., Hyos., Ipec., Nux, Samb.,* in spasmodic cough.

"I have been in the habit of using the 9th potency of this drug, but latterly I have constantly used the 30th. One single dose of that potency is sufficient to cure entirely epidemic whooping cough, as is shown by symptoms 50, 53, 57, 62, but especially 58 and 87.

"The cure takes place surely between seven and eight days. Never give a second dose immediately after the first, it would not only prevent the good effect of the former, but would do considerable injury, as I know from experience."—*Hahnemann.*

## DULCAMARA.

**Characteristic.** Is best suited to persons of phlegmatic, torpid, scrofulous constitutions; restless and irritable; subject to catarrhal, rheumatic, or skin affections; brought on or aggravated by cold, damp, rainy weather, or in cold, damp, sudden changes occurring in hot weather (Bry.,—cold, dry west winds, Hep.); pale, watery, milky complexion.

Dark haired persons with delicate skin, sensitive to cold, liable to eruptions, especially urticaria, every time patient takes cold or is long exposed to cold and damp.

Dropsical affections from suppressed skin diseases or suppressed sweat, after exposure to cold air or cold dwellings; after ague, scarlatina, rheumatic fever.

Hæmorrhages; blood watery or bright red; epistaxis, hot, clear blood; worse after getting wet.

Confused; cannot find the right word for anything.

Catarrhal ischuria in grown up children, with milky urine, from wading with bare feet in cold water; involuntary urine; paralysis of bladder.

Pains increase in proportion as the affected parts are kept quiet.

"Indicated when the skin is liable to catch cold from sudden exposure to cold, damp air, or water."

Increased secretion of mucous membranes and glands; those of the skin being suppressed.

"A sticking pain is characteristic, which, however, is not so sharp as Bryonia, but as if done with a blunt instrument, circumscribed in location, followed by a pain as after a blow."—*Dunham.*

**Aggravation.** Cold, damp air; wet weather; working in a damp, cold cellar, or in a milk dairy in hot weather (Aran., Ars.); evening; during rest.

**Amelioration.** From moving; warm air; warmth in general; dry weather.

**Larynx and Trachea.** Voice: rough; hoarse; after measles or suppressed eruptions.

Constant tickling in larynx.

Trachea full of mucus; tough, greenish expectoration, with moderate cough.

Bronchitis in children, from cold or damp air, with offensive night sweats.

**Respiration.** Labored; asthmatic; oppressed, from mucus.

Asthma; humid, loose, rattling cough, copious sputa; from suppressed eruptions; worse in wet weather.

**Cough.** Cough: dry, hoarse, rough; loose, with copious expectoration of mucus; spasmodic, with profuse secretion of mucus in larynx and trachea; chronic, after measles (Caust., Dros., Puls.); barking, panting, from a deep inspiration.

Cough: from damp, cold atmosphere; from getting wet (Cal., Rhus); from sudden changes to cold in hot weather; must cough a long time to expectorate, especially infants and old people from threatened paralysis of vagi (Ant. t., Caust.).

Cough: worse from lying down, warmth of room, deep inspiration, getting wet, exposure to cold or damp; better in open air.

**Chest and Lungs.** Lancinating pain from middle of sternum to dorsal spine, when sitting, going off when rising.

Pain in left chest: as if the lung moved in waves; deep cutting close below clavicle, relieved by pressure; in region of fifth and sixth ribs, as if a blunt knife were thrust in.

Pain in right chest in region of third rib, on pressure went to back and extended between shoulders.

In deep-seated catarrhal affections of the lungs; in rheumatic pleurisy or pleuro-pneumonia of scrofulous subjects with a tendency to develop a chronic affection and end in mucous or tuberculous phthisis, Dulcamara may render invaluable service.

**Expectoration.** Sputa: tough, difficult; green or greenish colored; tasteless or blood-streaked mucus; bright red blood.

Chest apparently loaded with mucus, must cough long before expectorating.

**Relations.** Complementary: *Baryta carb.*

Follows well after *Dulc.: Cal., Bry., Lyc., Rhus, Sep.*

Incompatible: should not be used before or after without an intervening remedy: *Acet. ac., Bell., Lach.*

Compare, in coughs with inability to expectorate without long coughing: *Arn., Caust., Dros., Kali c., Sep.*

## FERRUM.

> "This metal is said by ordinary physicians to be a strengthening medicine *per se*, and not only innocuous, but entirely and absolutely wholesome. * * *
>
> The actual sanitary condition of persons residing near waters impregnated with iron might have taught them that this metal possesses strong pathogenetic properties. * * *
>
> In such localities there are few persons who can resist the noxious influence of the continued use of such waters and remain quite well, each being affected according to his peculiar nature. There we find, more than anywhere else, chronic affections of great gravity and peculiar character, even when the regimen is otherwise faultless. Weakness, almost amounting to paralysis of the whole body and of single parts, some kinds of violent limb pains, abdominal affections of various sorts, vomiting of food by day or by night, phthisical pulmonary ailments, often with blood-spitting, deficient vital warmth, suppressions of the menses, miscarriages, impotence in both sexes, sterility, jaundice, and many other rare cachexias, are common occurrences."—*Hahnemann.*

The observation and clinical experience of half a century have not only confirmed the foregoing graphic picture given us by Hahnemann, but have justified the soundness of his conclusions. Its disorganizing effect on the processes of assimilation and nutrition, and its ultimate termination in congestive anæmia, erethistic chlorosis, or phthisis florida, he distinctly pointed out. It is one of the longest acting antipsoric remedies in the materia medica, and not a "tonic" to be carelessly given for every case of "debility" at the whim of the physician.

Like Calcarea, its most valuable indications are to be found in the constitutional symptoms; the specific symptoms, though prominent, are much less guiding.

Ferrum should never be administered to the sick, and especially the consumptive, in the crude form, for, like the acids, and Acetic acid in particular, it predisposes to serious if not fatal hæmorrhages.

**Characteristic.** Is best suited to dark-haired persons of sanguine, choleric habit; peevish, fretful, quarrelsome, disputative, easily excited, least contradiction angers: the young of both sexes subject to irregular, unequal circulation of blood; women who are weak, delicate, chlorotic, yet have a very red face when excited.

*Extreme paleness of the face, which becomes red and flushed on the least pain, emotion, exertion, embarrassment; blushing.*

"Great paleness of the mucous membranes, especially of the cavity of the mouth."—*Raue.*

Red parts become white: lips, gums, tongue, roof of mouth.

"Always better when walking slowly about, notwithstanding weakness obliges the patient to lie down."—*Guernsey.*

Vertigo: with balancing sensation, as if on water; on seeing running water; when walking over water, or when crossing a bridge (Hydroph.); on rising suddenly, things grow black; when *descending*, with disposition to fall forward (see Bor.); on ascending (Cal.).

Headache: every two or three weeks, for two, three, or four days; hammering, beating, pulsating pains; must lie down in bed; with aversion to eating and drinking, and intolerance of spirituous liquors.

Menses: too soon, too profuse, too long lasting, with fiery red face and ringing in ears; flow pale, watery, debilitating; intermits two or three days and then returns; must keep perfectly still, the least movement aggravates the flow; nervous patients who cry and laugh immoderately.

Epistaxis in anæmic children, color of face frequently changes, cheeks flushed (with red face relieving headache, Mel.).

Canine hunger alternating with loss of appetite; extreme dislike to all food; no appetite; always feels full: painless vomiting of all solid food after eating; immediately after midnight.

Erethic chlorosis, worse in winter; from defective or profuse menstruation.

Anæmia: from impoverished blood or exhausting hæmorrhages or diseases; unsuitable diet and defective air and light or ill-ventilated dwellings.

"Hæmoptysis, especially in young boys or girls who are subject to consumption and who are just in the incipient stages of phthisis florida."—*Farrington.*

"General hæmorrhagic tendency."—*Lippe.*

**Aggravation.** While at rest; on beginning to move; after midnight; from fat food; abuse of quinine.

**Amelioration.** *Walking slowly about;* moving affected part.

**Larynx and Trachea.** Voice: hoarse, weak, almost extinct.

Aphonia: pain in larynx and trachea; burning sensation after talking; hæmorrhage of larynx or hæmoptysis with asthma; complete, causing anxiety.

Sensation of roughness in larynx.

Aphonia: can talk only in a painless whisper; sensation of foreign body in larynx, which he attempts to remove by hawking or coughing; sensation externally as if the throat were being squeezed; tickling in larynx, producing violent attacks of cough, loses breath, blood mounts to head, lachrymation, and he falls down exhausted.

**Respiration.** Breathing: *difficult, as if from pressure of hand;* uneasy, from pain across chest; oppressed, short, loud, anxious; difficult, as from heaviness of chest; oppressed, short, from orgasm of blood.

Asthma: worse after 12 P. M. (Ars.); patient must sit up and uncover chest (uncovers to cool the chest and sits up in order to breathe); with difficult, slow breathing, better by walking, talking, or constant reading or writing, worse when sitting, more violent when lying down, especially in evening (better when lying down, Psor.); catarrhal, every morning from 10 to 11; suffocative attacks in evening, in bed.

**Cough.** Cough: spasmodic, from tickling in trachea; after meals, with vomiting of all food taken; at night, must sit up to expectorate; with gagging and vomiting; with aching pain in upper part of sternum; with expectoration of tough, transparent mucus.

Constant irritation to cough, in the evening without, in the morning with copious expectoration, with great debility, emaciation, hectic fever, and complete cessation of menstrual flow.

Most suitable for the spasmodic cough of brandy drinkers; excessive tea drinkers; persons who are constantly taking quinine or some preparation of Peruvian bark; who suffer from loss of vital fluids; worse from moving, talking, violent exertion, at night.

Morning cough excited by drinking, often relieved by eating (Anac., Spong.,—excited by eating or drinking, Nux, —excited by eating or drinking anything cold, Hep.,—relieved by drinking, Caust., Spong.).

"The Ferrum patient, like Calcarea, Silicea and Sepia, is habitually cold: coldness of the hands and feet, with

burning of palms and soles (compare Ars., Lach., Sulph.)."
—*Kent.*

Cough: worse from tobacco smoke, tea, wine, brandy, quinine; when moving; violent exertion; when talking; at night; from loss of vital fluids.

"Spasmodic cough, ceasing immediately after a meal, or else commencing after a meal, with vomiting of food."—*Nash.*

Ferrum, like Carbo v., has violent throbbing pain in base of brain, as if it would burst, when coughing; the red face of Ferrum, under pain and excitement, differentiates.

**Chest and Lungs.** Pains: *flying from one point to another;* dull, heavy, across upper part of chest, or sore below clavicle and left nipple, making breathing difficult; inter-scapular, cannot take a long breath; shooting, stinging or sticking, bruised, cramping, constrictive sensation in chest.

Stitches in chest and sensation of soreness, when coughing.

Burning in upper part of sternum, after coughing.

Contractive cramp in chest, and cough only when moving or walking.

**Expectoration.** *Scanty, thin, frothy, with streaks of blood.*

Sputa: copious, putrid, pus-like, slimy, greenish, bloody; of a sweetish, putrid, or sour taste, worse evening till midnight (Puls., Spong.); with great debility, emaciation, hectic fever.

Hæmoptysis: scanty, bright red, coagulated; or first dark, then thin, light, watery; from severe exertion; after loss of fluids; of onanists and consumptives; from suppressed menses; with inter-scapular pains; most frequently in morning on rising, or morning and night; must sit up; heavy breathing; is very weak, particularly after talking; better walking slowly about, notwithstanding weakness compels lying down (wose from least motion, Ipec.).

Pulmonary tuberculosis; in young, florid subjects, with the characteristic erethism of vascular system, with congestion of and erratic transient pains in chest, and roof of mouth persistently white.

Pulmonary consumption in women who blush easily; worse after wine; chest pains fugitive, cannot be located; epistaxis and blood spitting alternate; menses watery or suppressed.

**Relations.** Complementary: *Alumina, Cinchona;* with the former in chlorosis, with the latter in anæmia from loss of vital fluids.

Similar to: *Ars., Cinch.;* for emaciation and rapid wasting of tissue and strength.

Antidotes: *Ars., Cinch., Hep., Ipec., Puls.;* the latter for the drugging of iron and quinine, the favorite "tonic" of the dominant school.

Compatible: *Acon., Arn., Bell., Con., Phos., Lyc.*

If previously poisoned by abuse of iron in the crude form, *Ferrum* in a high power may prove an efficient remedy in the diseases of after life.

Duration of action: from 30 to 50 days.

## HEPAR.

An extremely hypersensitive nervous system is the peculiarity of Hepar. This hyperæsthesia is manifested in the over-sensitiveness of the skin to touch, to the pain caused thereby, and to the exposure of any part of the body to cold air. As a danger signal of the coming storm, it is with the latter especially that we have to deal in the premonitory symptoms of tubercular affections. Like Calcarea, the croupous cough of infancy and childhood, brought on or aggravated by the least exposure to cold air, is often a valuable indication for the diseases of the adult and should always be taken into consideration.

For attacks of acute catarrh, Hepar, if given in the incipiency, frequently spoils the case, because it is rarely called for during the congestive stage; it is not until mucus is secreted and expectoration has begun that the symptoms calling for Hepar are found.

**Characteristic.** Psoric, scrofulous diathesis, especially of children (Psor., Sulph.).

Suitable for persons of slow, torpid constitutions; light hair and complexions; slow to act; muscles soft and flabby.

Great tendency to suppuration; every cut or hurt suppurates; the slightest scratch or injury maturates (Cal., Cham., Graph., Sil.).

Peevish; angry at least trifle; cross, obstinate, irritable, wrathful; hypochondriacal; unreasonably anxious.

Hasty speech and hasty drinking (speech rapid and hasty, Bell.—see Lach., Sulph.).

Extremely sensitive to cold air, to open air; must be wrapped up to the face even in hot weather (Psor.); cannot bear to be uncovered (Nux—skin cold, but cannot bear to be covered, Camph., Sec.); coughs when any part is uncovered; cough or croup from exposure to dry, cold, West or Northwest wind (Acon., Bry., Spong.).

Great chilliness in open air (Cal.).

Great *sensitiveness* to external impressions; cannot bear slightest draught of air, noise, cold, touch, etc.

Extreme sensitiveness to contact; dread of touch out of all proportion to actual pain—swellings, ulcers, suppurations, boils; skin affections, especially of scalp, very sensitive, pain often causing fainting.

Constant offensive exhalations of the body (Psor.); the child smells sour (Rheum).

The skin affections of Hepar are moist, suppurative, sensitive to touch, and spread by means of new pimples just beyond the old margins (dry, itching, insensitive to touch, in fact, relieved by rubbing and scratching, Sulph.).

**Aggravation.** From cold air; open air; undressing (Kali b.); uncovering; touching the parts; lying on the painful side (Ars., Iod., Kali c., Nux m., Sil.); swallowing, especially solid food (parts so sensitive).

In clear, fine, dry weather (like Caust.).—*Guernsey.*

**Amelioration.** Warmth in general; wrapping the head up (Sil.).

In damp and wet weather (Caust.).—*Guernsey.*

**Larynx and Trachea.** *Sensitive to cold air.*

Hoarseness: with roughness in throat; voice toneless, weak; scarcely audible in evening; scraping in throat causing rough, barking cough; with grating and irritation in larynx.

Aphonia: weakness of organs of speech and of chest, cannot speak aloud.

Pain in a small spot in larynx, worse from pressure, speaking, breathing, coughing.

Sensation of down in larynx.

Croup: after exposure to dry, cold wind, to cold air or water; with deep, rough, barking cough, hoarseness or complete aphonia; cough hoarse and rough without sputa; child lies with head thrown back; violent fever, great anxiety, loud whistling breathing; worse before midnight or towards morning.

The cough is hard, barking, ringing, and at the same time accompanied by rattling of mucus; the least exposure, even uncovering an arm or foot, excites a spell of coughing; especially worse towards morning, if it occurs before midnight is moist, not dry.—*Farrington.*

Acute or chronic laryngitis, tracheitis or bronchitis, occurring in persons of a scrofulous habit or with a tubercular constitution; larynx and trachea sensitive to touch; cough hoarse, rough, severe, hollow; in morning on rising, worse from walking against the wind, breathing cold air, eating or drinking anything cold; sputa, scanty, muco-pus, difficult to raise; sweats profusely, especially about the chest.

**Respiration.** Involuntary deep inspirations.

Breathing; short, anxious, rattling, wheezing (Spong.); threatening to suffocate; must bend head back and sit up.

Asthma: dyspnœa, preventing sleep; sensation of dust in lungs; just as falling asleep is aroused by threatened suffocation; wheezing cough with copious mucous expectoration; must get up to relieve dyspnœa; better during day.

**Cough.** Paroxysms of cough, as from taking cold, with excessive sensitiveness of nervous system as soon as the slightest portion of body becomes cold.

Cough caused by: exposure to West wind; any part of body getting cold (Rhus); cold air; eating or drinking anything cold (relieved by eating or drinking, Spong.); lying in bed; talking; crying.

Cough: hoarse, croupish; dry, rough, nervous, hacking (Bell., Nux); suffocative or loose and choking; deep, whistling, wheezing; barking, after measles; rattling, moist, worse towards morning; immediately after eating.

Dry cough, worse from evening till midnight.

During cough: burning in chest and stomach; stitches and burning in throat; catching of breath; nausea, vomiting, retching; sneezing, chills; anxiety and bending backwards of body when lying.

After cough: sneezing; crying (Agar., Bell.).

Croup almost uninterrupted, from tickling in upper part of left side of throat, worse talking and stooping, getting worse till late in evening, then suddenly ceasing.

Tittillation, as from dust in throat, inducing deep, wheezing cough.

Deep, dull, whistling cough, in evening without, in morning with expectoration of masses of mucus, purulent, bloody, sour, or of a sweet taste and offensive odor.

**Chest and Lungs.** *Soreness in chest* (Kali c.).

Sensation as if hot water were trickling through the bronchi; as of drops of hot water in left chest. Cannot talk from weakness of chest (Stan.).

Spasmodic constriction of chest, after talking.

Stitching pain in right side of chest extending to the back.

In tuberculosis with oppressed breathing; periodic stitches in chest; cough before midnight and in the morning, dry at first, later with a serous expectoration containing small flocculi; sometimes patient will spring up and after coughing expectorate a mass as large as a pea which, when crushed, emits an odor of carrion (Psor.); faint respiratory murmur with percussion dullness, especially in upper parts of chest; in herpetic and scrofulous subjects particularly, from suppression of exanthems.

Tenacious mucus in chest.

"Sensation of a hard body in the epigastrium; then comes a hæmoptysis."—*Dunham.*

**Expectoration.** Abundant expectoration of tenacious mucus relieves the rattling breathing.

Sputa: scanty, tenacious, muco-purulent in laryngeal catarrh; dirty, yellowish, badly smelling; pus-like and bloody; masses of mucus; sour, or sweet taste and offensive odor; bloody, frothy, tuberculous masses; small balls emiting a carrion-like odor when crushed.

**Relations.** After Hepar follow well: *Bell., Lach., Mer., Nit. ac., Sil., Spong., Sulph., Zinc.*

Hepar is an effective antidote to mercurial and metallic poisoning in general; to Iodine, and especially the abuse of Iodide of potash and cod-liver oil; when skin diseases have been suppressed by ointments of Zinc or Mercury and chest affections result as a consequence.

Hepar follows: *Psor.* (in the over-sensitiveness to cold or cold air; patient must be muffled up to chin even in warm weather); *Cal.* (in bad effects of exposure to draughts of air).

## IODUM.

Iodine is a heroic medicine, even when employed in the highest potencies; its use requires all the discretion of a good homœopathic physician, lest he should abuse this substance, as allopathic physicians do, who frequently destroy the constitution and even the life of their patients by enormous and improperly applied doses of the drug.—*Hahnemann.*

The topical application of Iodine is never justified in the healing of the sick; and the irreparable injury inflicted by this practice of the dominant school should be a warning which every true follower of Hahnemann must heed.

Like Calcarea and Phosphorus, Iodine is often called for in rapidly growing emaciated youth of both sexes who emaciate while eating well and who suffer from frequent and severe congestions of the chest, dry cough caused by a constant tickling in every part of the lungs, and great weakness of the chest, particularly on going up stairs. The black hair and black eyes differentiate it from Calcarea.

**Characteristic.** Persons of a scrofulous diathesis, dark hair and eyes (light hair and eyes, Cal., Brom., Hep.); a low cachectic condition, with profound debility and great emaciation (compare Ars., Ars. iod., Nat. mur.).

Overgrown boys with weak chest (Cal., Cal. p., Phos.).

Hypertrophy and induration of glands: the harder they feel and the more other symptoms are wanting, the better indicated (compare Brom., Carbo an., Con.).

Scrofulosis pulmonum; marasmus; great emaciation, with intolerable mental irritability, cannot bear to be looked at, spoken to, approached or touched (Ant. t., Sil.).

Ravenous hunger; must eat every few hours, yet is not satisfied; gets anxious and worried if he does not eat; feels better after eating; eats freely yet loses flesh all the time (Nat. m.).

Empty eructations from morning till evening, as if every particle of food was turned into air (Carbo v., Kali c.).

Sensation as if heart was squeezed together; as if grasped by an iron hand (Cac., Sulph.); palpitation, worse from least exertion (worse from least motion, Dig.—as if heart would stop beating if she ceased moving, Gels.).

Great weakness and loss of breath on going up stairs, (Cal., Mer.).

Patients with a history of goitre in the family, or partially cured goitre in themselves.

**Aggravation.** When fasting, before eating; from wrapping up the head, cannot bear even a hat on; lying in bed, especially on painful side; warmth in general, a warm room, warm air, getting warm in the open air.

**Amelioration.** After eating, especially after a full meal; from uncovering the head (Lyc.); in a cold place; in the cold air; after rising from bed.

**Larynx and Trachea.** Voice: hoarse, nasal; tremulous, jerky, broken; descending into a fatiguing whisper; hoarse, rough, deep sound, becoming continually deeper; aphonia.

Hoarseness: in morning with unbearable tickling and tingling in larynx; lasts all day, constant hemming and hawking, tough mucus in small quantities thrown off; with soreness, tightness and constriction about larynx.

Pains in larynx: with desire to cough; with discharge of hardened mucus (Alum., Kali b., Teuc.).

Painful pressure mingled with stitches in region of sublingual glands.

Phthisis, with constant tickling in trachea and under sternum; cough dry, hard, racking; expectoration of blood-streaked mucus; morning sweats; wasting fever; emaciation; rapid pulse; diarrhœa; amenorrhæa.

**Respiration.** Tightness of breathing; out of breath from least exertion.

Shortness of breath, palpitation, vertigo and sensation of weakness on going up stairs.

Breath comes in wave-like expansions.

Respiration, especially inspiration, difficult.

Suffocative, heavy, asthmatic breathing.

**Cough.** *Dry morning cough, or cough worse towards* *morning, from tickling in larynx.* Constant tickling in trachea and under sternum, inducing cough.

Unendurable tickling through whole chest, causing cough.

Cough as from a feather in throat, especially in morning (Amm. c., Cal., Dros., Ign.).

*Dry cough, with stitches and burning in chest.*

Cough caused by: tickling in larynx, trachea, under sternum, through whole chest; as from a feather in the throat; tobacco; warm room; pressure in throat.

Cough: dry, hacking, barking; moist but harsh; wheezing, metallic; often coming on in autumn; in paroxysms, severe, short, continuous; suffocating, can hardly get breath; dry, croupy; with bitter taste of solid food, not of drink (see Bry.); at night in bed, subjective dry heat.

Cough worse: in morning; in warm, wet weather; in warm room; by movement; by expiration.

During cough: anxiety, nausea; rattling; sneezing; vomiting; tickling and burning pain in throat; burning and stitches in chest. The itching in the end of the nose is the signal for the cough to begin (in hay fever.)

**Chest and Lungs.** *A feeling of great weakness in chest;* can hardly walk up stairs (so weak can hardly talk, Stan.). *Itching; low down in lungs, behind sternum;* causing cough; extends through bronchi to nasal cavity (compare Con., Phos., Puls.).

Sharp, piercing pains in chest.

Constriction of chest.

Croupous pneumonia when localization has occurred (Bry., Phos.).

Supra-clavicular region depressed, worse right side (infra-clavicular, Cal.).

**Expectoration.** Of transparent mucus streaked with blood; scanty, tough, slimy; salty, sweetish, sourish, putrid; white, gray, yellow; tenacious, gluey, rusty; or, in the advanced stages, fresh blood or even severe hæmorrhages.

**Relations.** Complementary; *Lycopodium.*

Iodine follows well after: *Hepar, Kali b.*, in croup; after *Psor.* in deep-seated constitutional affections when the indicated remedy fails, and a psoric history can be clearly traced.

Follow well after Iodine: *Arg. n., Cal., Lyc., Phos., Puls., Sep., Sulph.*

Ailments from abuse of *Arg. n., Ars., Cal., Mer.*

For the bad effects of the topical application of Iodine for the discussion of glandular tumors and cure (?) of erysipelas, *Hepar.*

◆

## KALI BICHROMICUM.

**Characteristic.** Best suited to light-haired, fleshy persons, who suffer from catarrhal, scrofulous or syphilitic affections, and are disposed to premature baldness; to people who become fleshy and tuberculous in middle life.

Fat, chubby, light-haired, short-necked children disposed to catarrhal and croupous inflammations (see Cal.).

Persons of florid complexions, of a blotchy, red appearance and thick skin (dry, pimply eruptions, face red and flushed, Hep.).

Catarrhal affections of mucous membranes — eyes, nose, mouth, throat, bronchi, gastro-intestinal and genito-urinary tracts — mucous discharges, tough, stringy, adhere to the parts and can be drawn out into long strings.

Complaints in hot weather.

Pains: in small spots, can be covered with the point of the finger (Ign.); migrate rapidly from one part to another (Puls. — pains change rapidly from one part to another, leaving former place free, Lac can.); appear and disappear suddenly (Bell., Mag. p.); neuralgia every day at same hour.

Rheumatic, alternating with gastric symptoms, one appearing in the Fall, the other in Spring; Catarrh alternating with rheumatic pains.

Plastic exudations in throat and along the respiratory tract; pseudo-membranous, firm, pearly, fibrinous, prone to extend to larynx and trachea (extend from bronchi to throat, Brom.); bladder-like appearance of uvula, much swelling but little redness (Rhus).

Nose: dryness and pressive pain in root of nose; discharge ropy, tough, green, bloody, offensive or not; of masses of hardened mucus, plugs, "clinkers" from nose and posterior nares (Alum., Sep., Sil., Teuc., Thuja); in clear masses, and has violent pain from occiput to forehead if discharge ceases.

Sexual desire absent in fleshy people.

Prolapsus uteri, seemingly in hot weather.

Liability to take cold in the open air.

**Aggravation.** In morning; 2 to 3 A. M. tough mucus strangles him; after eating; in damp weather, whether hot or cold; when weather is going to change; undressing (Hep.); lying on painful side.

**Amelioration.** Lying down; after getting warm in bed; pressure; eruptions, in cold weather (worse in cold weather, Alum., Petr., Rhus).

**Larynx and Trachea.** Voice: hoarse, rough, nasal, uncertain.

Hoarseness: *in evening* (Cal., Carbo v., Lach.); in morning, with accumulation of mucus in larynx; with dry, rough throat; chronic, with laryngitis.

Accumulation of tough mucus in larynx.

Hawks copious, thick, blue mucus in morning.

Sensation: of dryness in bronchi in morning; of burning in trachea and bronchi; lump in upper part of trachea (Fer.); hair across base of tongue which neither hawking, swallowing, nor eating, relieves; choking on lying down.

True membranous croup.

**Cough.** *With pain, from mid-sternum through to back;* severe stitching, or weight and soreness in chest.

Cough in morning on waking, with dyspnœa, relieved by lying down.

*Cough, especially in morning, with expectoration of white* *mucus, "tough as pitch," can be drawn out into strings.*

Cough caused by: tickling in larynx or at the bifurcation of bronchi; every inspiration; oppression at epigastrium; accumulation of mucus in larynx; least mouthful of food or drink (Nux—relieved by eating or drinking, Spong.).

Dry, short, continual tickling cough and pain in larynx, as if from an ulcer.

Cough: with soreness in chest, at one point, as if from an ulcer; dry, with stitches in chest, pain in loins, dyspnœa; loud, harsh, in single coughs, at different times; dry, after dinner; wheezing and panting, then violent with retching and difficult expectoration of viscid mucus; hoarse, metallic, croupy (in membranous croup); choking, from sticky mucus; stuffing, with pain in chest; resonant, whistling, with nausea and loud rattling in chest.

Constant hacking cough, with expectoration of blood; tickling irritation in larynx; night sweats; no appetite; pale; cachectic; phthisical.

During cough: nausea; ulcerative pain in throat and larynx; bloody taste in mouth; burning pain in sternum, extending into shoulders; heaviness and pains in chest; rattling in throat and chest.

**Chest and Lungs.** *Pains from back to sternum, or from mid-sternum darting to between shoulders* (often burning).

"Itching behind sternum, causing violent, racking, paroxysmal cough."—*Hering.*

"Sharp pain through the apex of the left lung to the left scapula (Myr., Sulph.) and through the base of right lung to right scapula."—*Brigham.*

**Expectoration.** The characteristic sputa of Kali b. is guiding, and is nearly always present at some stage of the affection. *It is tough, glutinous, viscid; adhering to throat, mouth, lips, and finally leaves the mouth in a long, stringy, tenacious mass.*

Sputa: "tough as pitch," can be drawn out into long strings; so tough, nearly strangles; dark, black, or bluish lumps; dirty, slate colored; yellowish-green matter; thick, heavy.

Traces of blood, or pure blood, sometimes expectorated; hæmoptysis.

**Relations**. Kali bichromicum follows: *Cal.*, in nasal, post-nasal or pharyngeal catarrh; *Mer. iod.* in diphtheria and throat affections; in membranous croup, after *Iod.* has modified the fever and ringing cough, and a hoarse, barking cough remains; tough exudation, weakness and coldness.

Is followed by: *Lach.* in croup when child wakens ens with smothering from spasms; *Kaolin* in membranous croup for downward extension with intense soreness of trachea and bronchi.

## KALI CARBONICUM.

In his introduction to Kali carbonicum, Vol. IV, Chronic Diseases, Hahnemann gives us the following brief, yet significant hint, of its sphere of action in affections of the lungs: "*Persons suffering from ulceration of the lungs can scarcely get well without this antipsoric.*" This has been verified clinically in cases of neglected pneumonia, where the rapid degeneration threatens to terminate in acute phthisis. In the incipient stage of fibroid phthisis involving nearly every degree of pleuritic complication, characterized by the darting, stitching chest pains; the dry, exhausting cough; the marked weakness and prostration, Kali carb. is very similar to Bryonia. But Bryonia has general relief from lying on the affected, especially the right side, while Kali carb. is made worse in this position.

Again, in later stages, when the nodules of tubercles and the saculated pus cavities are first detected, with or without an occasional discharge of tuberculous matter, it often becomes absolutely indispensable, and, like Lycopodium, will often cut short what appears to be a well marked case of tuberculosis and restore the patient to health. As in all our antipsorics, here, too, the constitutional symptoms are the most valuable, are nearly always guiding, and should be relied upon in selecting the simillimum.

**Characteristic.** Best suited for the aged, with dark hair, lax fibre, inclined to obesity (Graph.).

Adapted to complaints following parturition with backache, sweating, weakness; to dropsies, paralyses, and diseases of old people; after loss of fluids, or of vitality, especially in the anæmic (deficient vitality, lack of susceptibility to medicinal action, Carbo v., Psor.—see Cinch., Fer.).

Pains; *stitching, darting, worse during rest and when lying on the affected side* (stitching, darting, better during rest and when lying on painful side, Bry.).

*Sticking, stiching pains.*

Cannot bear to be touched; slightest touch, especially on the feet, startles; causes pain which makes patient shrink.

Sensation of emptiness in whole body as if it were hollow.

*Very much inclined to take cold;* every time patient goes out doors, is chilly if the air is cool (Cal.).

Great aversion to being alone (Ars., Bis., Lyc., Mel.—desires to be alone, Ign., Nux).

Eyes weak: after coition, abortion, measles.

Bag-like swelling between upper lids and eyebrows, like a sac; worse mornings.

Stomach: distended; extremely sensitive; feels as if full of water; as if it would burst; excessive flatulency; everything she eats or drinks appears to be converted into gas (Carbo v., Iod.).

Feels badly a week before menstruation; brain, chest, back, hips, limbs, ache and pain; feels tired, yawns; congestions to face, hot flashes, intermitting pulse.

Chilly about noon; worse after eating, out-doors, on every motion; relieved near warm stove and on lying down.

Awakening between 2 and 4 A. M., with nearly all complaints, but especially those of throat and chest (Calc., Nux).

Affects right side of chest most prominently — the lower lobe of right lung (Mer.—lower lobe of left lung, Nat. s.).

"Stitching pains in temples, eyes, ears, teeth and different parts of the body. After dinner, nausea, faintishness and sleep; about noon chilliness; at night heat." *Raue.*

**Aggravation.** After midnight (Ars.); from 2 to 4 A. M., especially cough, throat and chest; cold air; becoming cold; after eating, especially warm food (Bry., Nux); before and during menstruation; lying, on either side, but especially on painful side (reverse of Cal., Bry., Ign., Puls.); after coition or from involuntary pollutions.

**Amelioration.** Warm air; warmth in general; getting warm; eructations (Carbo v.); *after breakfast;* leaning forward, with elbows on knees (Ars.).

**Larynx and Trachea.** *Complete aphonia,* with violent sneezing.

Scraping, dry, parched sensation in larynx.

Throat rough; *constant scraping and hawking* to remove mucus which collects in fauces; choking and gagging unto vomiting, especially in morning.

*Sensation of lump in throat;* of fishbone with hawking and scraping.

Chronic catarrhal irritation of larynx and bronchi, worse from cold, damp weather; efforts to clear the larynx or detach the mucus terminates in retching and vomiting.

Accumulation of mucus in the fauces and larynx; patient "hawks and hems" in the morning. This hawking is found under every alkali, but the sensation of a "fish bone" in the throat as soon as he "catches cold" with the hawking is found under no other remedy. Alum., Arg. nit., Carb. v., Hep., Nit. ac., all have sensation of splinter or fish bone in the throat.—*Farrington.*

**Respiration.** *Difficult, wheezing breathing.* Sensation as if there was no air in the chest, could not breathe.

Weakness and tired sensation in chest, from rapid walking.

Tension across chest, on expiration, while walking.

Breathing: short, in morning; suffocative, from dryness of larynx; labored, after paroxysms of cough; arrested, awaking him at night; worse from drinking, motion, rapid walking, and in the morning.

Dyspnœa with violent and irregular beating of the heart; pulsation all over body.

Asthma: in terrible attacks, worse from 2 to 4 A. M.; must lean forward with head on knees (Ars.); continual pressure, tension, and fulness in stomach after eating; small quantities of liquid food fill to repletion (Lyc.); paroxysms return every two or three hours at night, or alternate with nightly diarrhœa.

**Cough.** *Dry, hard, exhausting, beginning at 3 a. m.* and repeated every half hour.

Cough: in paroxysms, from tickling in throat, larynx or bronchi, loosens tenacious mucus or pus which must be swallowed (Arn., Caust., Dros., Sep., Kali s.); spasmodic with gagging, retching and vomiting of ingesta and sour tasting mucus; irritating, tormenting, gets nothing up, feels as if a tough membrane were moved about, but would not loosen (Alum.); fatiguing, violent, every evening after lying some time in bed; so violent as to cause vomiting.

Cough: on playing the violin (the piano, Amb., Calc., Cham., Kreos.); dry, morning and evening with burning in the chest (Ars.); dry, at night, waking from sleep with acute pains in chest, little during the day.

Cough, suffocative and choking at 5 A. M., as from dryness of larynx; cannot speak on account of cramp in the chest, with redness of face and perspiration over whole body.

Cough dry and teasing, from great dryness of throat, from 2 to 4 or from 3 to 5 A. M.; awakes with a dry cough at 2 A. M. (Ars.) which causes gagging, with scanty yellow expectoration; dry, hard, troublesome during night, but much worse at 4 A. M. with little or no expectoration and a stitching pain in left side which goes up the back when coughing or taking a deep inspiration.

Cough better after breakfast (worse after breakfast, Nux.).

**Chest and Lungs.** WEAKNESS OF THE CHEST, aggravated by rapid walking.

Rheumatic pains in chest, back, shoulders, arms; worse from motion.

Oppression of the chest: with deep, difficult respiration; with distended abdomen.

CUTTING PAIN IN CHEST, *in evening after lying down, worse lying on right side;* in lower chest, especially left side, extending into gastric region and leaving a stinging sensation in left side of chest.

Stiches: IN SIDES OF CHEST, especially right chest on inspiration; *in lower portion of right lung through to back* (Bor., Bry., Chel.); worse from any motion, but unlike Bryonia, are not relieved by rest.

Pain through lower third of right chest to back.

Pain as if lower lobe of right chest was adhering to ribs.

Sore pain in upper part of chest, on breathing, touching, or lifting anything heavy.

Stitches: under l. mamma, at times extending upward from low down in chest; sometimes descending deep into chest; dull, painful, from within outward under l. clavicle relieved by pressure (in right chest, Bor.); dull, deep in left chest under short ribs; in left chest, with violent palpitation.

STICKING PRESSURE IN LEFT SIDE OF CHEST ON DEEP BREATHING.

Pressure in whole left side of chest.

Spasms of the chest.

Burning in region of heart.

Cough, worse at night; pressure and heaviness in head; vertigo when moving; pinching and gripping in chest with pains about epigastrium; whistling, wheezing in chest; great dyspnœa; in afternoon much chilliness, in morning and at night fever with sweat; congestion; pains in limbs; tearing, stitching pains in eyes and ears, always on same side; obstinate constipation; prostration so great he must remain in bed; face earthy; pulse changeable; offensive smelling sweat; profuse expectoration of whitish yellow pus with cough, 3-4 vessels being filled daily; occasionally expectoration is difficult; second stage.—*Guiding Symptoms.*

Cough worse from any exertion, and worse when lying down; green scabs are sometimes coughed up, and frequently hard, round, white masses fly from mouth when coughing or hawking; burning in top of head and soles of feet; sweaty palms; circumscribed red spots on one cheek; attacks of gastric disorder, which begin with putrid gas, tasting like rotten eggs and ending with watery diarrhœa, worse in morning; gets hungry and faint about 10 A. M.; contraction of heel cords; eruption of minute vesicles upon soles of feet; canker sores in mouth; gums bleed easily; trembling sensation through entire body, worse through pelvic region; menses scanty and late; weeps very easily while stating her symptoms.—*Guiding Symptoms.*

**Expectoration.** Purulent, mixed with blood and thin yellow pus; streaked with blood or containing small lumps of blood; of pus globules, albumen, blood; masses resembling pus; unable to expectorate the loosened sputum; hard, round, white masses fly from the mouth when hawking or coughing (Bad., Chel., Lach.—small balls emitting a carrion-like odor when crushed, Hepar).

**Relations.** Kali carb. is complementary to *Carbo veg.* and similar to it in many forms of lung diseases, especially the pathological results of inflammation. The relation of these two remedial agents should be carefully studied and compared, as when one of them affects a marked improvement the other often completes the cure.

*Phosphorus* holds a complemental relation but in a minor degree.

Compare also *Natrum mur.*, *Stannum* and *Lycopodium.*

Follows well after: *Ars.*, *Carbo v.*, *Lyc.*, *Phos*, *Puls.*, *Sep.*, *Sulph.*

Is followed by: *Bry.*, *Lyc.*, *Nat. m.*, *Nit. ac.*

"The cases of consumption most likely to be benefitted by this remedy are of a catarrhal or pneumonic origin, or when asthmatic, cardiac or dropsical symptoms complicate the lung affection. It is better adapted to that stage of tubercle when the breaking down process has set in, the cough is still exhausting and dry and hectic and emaciation are present."—*Brigham.*

## KALI IODATUM.

Unfortunately we are without a thorough proving of the Iodide of Potash; our knowledge thus far being chiefly clinical and from large doses of the crude drug administered to the sick. It appears to affect most prominently the connective tissues, producing œdema and infiltration of the parts. Many of its symptoms are similar to and are probably due to Iodine, hence rapid and excessive emaciation may be regarded as important indications. Large doses of the crude drug are not necessary; when indicated the potencies of Kali Iodide act as promptly and as effectively as those of any other remedy.

**Characteristic.** For the scrofulous diathesis; especially if mercurialization or syphilis be engrafted on a scrofulous basis.

Small boils: on face, neck, scalp, back, chest, suppurating and often leaving scars; epidemic, of various sizes, from a small pustule to a large boil, the latter often becoming carbuncular and is surrounded by little pustules (Lach., Lyc., Tub.).

Hæmorrhages: from nose, lungs, rectum; purpura hæmorrhagica.

Glands: swollen, indurated; thyroid, bronchial, submaxillary; interstitial infiltration; atrophied—mammæ, testes;

suppurate, discharge thin, corrosive, curdy; indolent, with everted, hard edges.

Swelling of bones and periosteum, pains worse at night; exostoses, tophi, general enlargement of tissues by interstitial infiltration.

Chronic periosteal rheumatism of syphilitic or mercurial origin; nocturnal bone pains, driving patient to despair.

Ulcers: cancerous; bleed easily, are unhealthy. Condylomata of long standing in cachectic subjects.

Discharge from mucous surfaces, thin, ichorous, corroding, green.

Great mental irritability; passionate, spiteful; apprehension of impending evil.

Rapid emaciation with loss of appetite. (Iod., Lyc. Phos.).

**Aggravation.** Pains in limbs and bones are worse every evening and become intolerable at night (Mer.); from 2 to 5 A. M., (chest symptoms.)

**Amelioration.** Irresistible desire for the open air; walking in open air does not fatigue. Better in the open air (Fl. ac).

**Nose.** Acute coryza; great redness of the mucous membranes of the eyes, nose, throat, palate, with profuse lachrymation, violent sneezing and profuse coryza, frequent inclination to cough and swelling of the upper lids.

Fulness, throbbing, beating, burning pains in the nasal and frontal bones, with swelling.

Nasal discharge: of tenacious mucus; thick, yellow matter; decomposed, of a foul, sickening odor; greenish-red or greenish-black; burning water, which makes skin sore.

**Larynx and Trachea.** Voice; hoarse, rough, nasal; aphonia.

RAW PAIN IN CORYZA, AS IF FROM ULCERATION.

Awakens with choking, can scarcely breathe; spasms or œdema of glottis; laryngophthisis.

Rough feeling in trachea, obliging hawking.

**Respiration.** Shortness of breath; had to get up, fearing he would be smothered. Oppression of breathing, worse from 3 to 5 A. M.

Asthma; in growing youth, or in the young who have not attained their growth, with rheumatic pains about the chest.

**Cough.** From constant irritation in throat; short, suffocative; short, hacking, from rawness in the throat; dry, with feeling of soreness in larynx; dry, morning and evening.

Dry, hacking; later copious, green sputum.

Deep, hollow cough, with whitish and greenish expectoration, and tearing-out pain starting from ensiform cartilage.

Cough, violent, racking, tearing in character, worse in morning from 2 to 5 A. M. (Kali c.).

**Chest and Lungs.** Pains in chest, as if cut to pieces.

Stitches: fine, transient, deep in middle of the chest; violent in mid-sternum, extending to shoulders; through sternum to back, or deep in chest, while walking; pleuritic, threatening effusion; sharp, through right lung from nipple.

**Expectoration.** Copious, greenish; looks like soapsuds; purulent, with exhausting night sweats and loose stool.

**Relations.** Complementary to *Iodine* in glandular and chest affections.

It follows: *Ars.*, *Iod.*, *Mer.*

Is followed by: *Hep.*, *Lach.*, *Puls.*, *Sil.*, *Sulph.*

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## KREOSOTUM.

A few cases have been recorded in homœopathic literature in which consumption has been successfully treated by Kreosote; but not nearly so many as the profound, deep-seated, and disorganizing action on the life forces and on nearly every tissue of the organism, would seem to justify. Its pathogenesis is very suggestive, and will bear careful comparison.

**Characteristic.** Dark complexion, slight and lean, poorly nourished, ill-developed; overgrown, very tall for her age, fair, blonde, delicate (Cal., Phos., Phos. ac.); pale, weak, delicate, irritable, wilful.

Torpid, leuco-phlegmatic temperament; post-climacteric diseases of women (Lach.).

Children: old looking, wrinkled (Abro. Psor.); hard to awaken.

Hæmorrhages: profuse, passive, usually dark; small wounds bleed much (Lach., Phos., Sec.); epistaxis, hæmoptysis, hæmaturia; typhoid, with fetid stools and great prostration (Nit. ac., Phos.).

Scrofulous and psoric affections: rapid emaciation (Iod.).

Ulcers: spongy, burning; gangrenous, cancerous, putrefying; pus yellow, fetid, acrid, ichorous, tendency to disorganization; anthrax, carbuncle.

Itching: so violent, toward evening, as to drive one almost wild (body itches intolerably, worse in bed and from warmth, scratches until it bleeds, Psor.— intolerable itching while undressing — exposure to air, Rumex).

General weakness and prostration; great debility; fatigue from least exertion.

Anxious; apprehensive.

Sorrowful, inclined to weep, or longing for death; music and like emotional causes impel him to weep; ill humor; obstinate; morose; peevish; fretful; irritable (whines and cries if touched, Ant. t.— obstinate, head-strong, cries when kindly spoken to, Sil.).

Excited; ailments from emotions (Col., Ign., Staph.).

Enuresis nocturna; during deep, first sleep from which child is aroused with great difficulty; wakes with urging but cannot retain urine, or dreams he is urinating.

**Aggravation.** Morning and evening; from motion; exhaling; music; when lying on side or turning in bed.

**Amelioration.** Pressure of hand relieves pain in chest and sternum (must hold chest when he coughs, Bry., Nat. s.); in open air.

**Larynx and Trachea.** Sraping and roughness in throat; hoarseness ceasing in morning, after sneezing; voice raw, hoarse.

Crawling sensation in lower part of larynx or in trachea or upper bronchi towards evening, provoking cough.

Secretion of mucus in larynx, causes cough.

Perichondritis of larynx, septic form, with softening and degeneration of mucous membrane.

Chronic laryngeal or bronchial catarrh, with hoarseness, hawking mucus, sometimes bloody, especially that from trachea; heavy pressure on sternum when turning over in bed in morning; worse on approach of warm weather; no cough.

**Respiration.** *Shortness of breath;* she cannot get her breath completely; it seems as though the lower portion of chest were held tightly. Oppression, heaviness, anxiety, frequent desire to take a deep breath; chest feels bruised, as if beaten; as if sternum was being crushed in. When ascending stairs the catching respiration disappears.

**Cough.** Dry, tormenting; evening, in bed; wheezing, whistling, hollow; with dyspnœa; convulsive or spasmodic in morning, with retching or desire to vomit; with concussion of abdomen and escape of urine; with easily detached white sputa; during dentition; with pain in chest and sternum, compelling to press hand on it.

During cough: scraping and scratching in throat; retching; jarring of abdomen; asthma; escape of urine; stitches and bruised pain in chest; chills and heat; sleepiness.

After coughing; copious, purulent expectoration. Fatiguing, violent winter cough of old people, with spasmodic night attacks, very copious light-colored sputa; pain or pressure at the sternum.

**Chest and Lungs.** *Dreadful burning in the chest;* wanted water to quench it; constriction.

"Periodic attacks of blood spitting, with fever and expectoration of greenish-yellow pus; pains in chest; can lie only on one side."

"Attacks of severe cough every spring and autumn, with expectoration of yellowish-green pus and blood, fever and inability to lie on left side."

"After neglected pulmonary catarrh, severe, persistent, spasmodic cough, often attended by vomiting; expectoration slimy, profuse, purulent; must sit up nearly all night; constant stitches in left chest; bitter taste in mouth; fetor oris; frequent, greenish, watery diarrhœa; hectic fever."

Stitches: *in left chest just over heart*; first in left then in right chest; across the chest from morning till noon; in right chest interrupting breathing; under scapula; acute in middle of chest, worse during inspiration attended with feeling of lameness over right shoulder to elbow joint, worse on raising the arm.

*Pains in chest relieved by pressure.* Anxious sensation of heaviness and oppression of the chest.

**Expectoration.** Of thick, yellow or white mucus; *copious, purulent; greenish yellow, pus-like;* periodical blood-spitting; blood black, coagulated.

"Emaciation; dry, teasing cough; intense hectic; shortness of breath; night sweats; great debility."

**Relations.** Is followed well by: *Ars.*, *Sulph.*

It disagrees after: *Carbo v.*

Is occasionally followed by: *Bell.*, *Cal.*, *Kali c.*, *Lyc.*, *Nit. ac.*, *Rhus.*, *Sep.*

Compare: *Ant. t.*, *Carbo a.*, *Hep.*, *Iod.*, *Lach.*, *Petr.*, *Phos.*, *Sil.*

## LACHESIS.

This is one of the most helpful remedies in the Materia Medica, and one too, most frequently indicated for that long train of constitutional ailments which undermine the health and so impair the resisting powers of the organism as to render it an easy prey to the destructive process of tuberculosis. For the irregularities of the circulation and the consequent weakening of the mucous membranes resulting in epistaxis, hæmatemesis, hæmoptysis, menorrhagia or metrorrhagia—at puberty, during menstrual life, and especially at the climacteric—conditions which if rightly interpreted and properly treated prevent the development of the full blown flower, consumption, Lachesis is a sovreign remedy. Also, it is for that form of tuberculosis which has been developed during the course of protracted typhoid or pneumonia, rather than the so-called hereditary form of the disease that Lachesis works its wonderful effects. It is of this that Farrington says:

> "You may use Lachesis in phthisis, not to cure but to relieve. Remember it when in the course of typhoid fever or pneumonia, tubercules have been deposited in one or both lungs. You may use it in the advanced stages of tuberculosis of the lungs when the patient has a retching cough, which arouses him from sleep and which ends in expectoration of tough greenish muco-purulent matter, which is gagged and vomited rather than clearly expectorated; when the patient sweats in every nap, most copious about the neck, shoulders and chest; strength greatly reduced, pulse indicates extreme exhaustion."

Its curative sphere is in preventing the development of phthisis; in the last stage it can only palliate.

**Characteristic.** Best suited to persons of a choleric or melancholic temperament and phlegmatic constitution; dark eyes and a disposition to lowness of spirits and indolence.

Women of choleric temperament, freckles and red hair (compare Lyc. and Phos.).

Better adapted to thin and emaciated than to fat persons; or adapted to those who have been changed both mentally and physically by their illness.

People of vivid imagination.

Climacteric ailments: hæmorrhages, hemorrhoids, hot flushes, burning vertex headaches; especially after cessation of flow; women who have not recovered from change of life, "have never felt well since that time," although 10, 15 or 20 years have elapsed; hot flushes by day and cold flushes by night.

Drunkards: headaches, hemorrhoids; prone to erysipelatoid inflammations; for the bad effects, especially mental, of alcoholism (Can. ind., Nux).

Left side principally affected: throat, ovarian and other affections commence on the left side; rheumatism begins on the right.

In syphilitic mercurial affections, or where syphilitics have been injured by mercury.

Great sensitiveness to touch; throat, stomach, abdomen; can bear nothing tight around the waist; cannot bear bedclothes or night-dress to touch throat or abdomen, not because sore or tender as in Apis or Bell., but the clothes cause an uneasiness (compare Agar.).

Extremes of heat and cold cause great debility.

Mental excitability, quick comprehension; ecstacy, with almost prophetic perceptions; great loquacity, wants to talk all the time, jumps abruptly from one idea to another.

Great sadness, anxiety and mental distress, worse in morning on waking.

Chronic ailments after long lasting grief or sorrow (Ign., Op., Phos. ac.).

Epistaxis: blood dark, fluid or clotted; with amenorrhœa; before menses; post climacteric; mostly in morning; during typhoid or incipient tuberculosis at climacteric; blowing of blood or trickling on blowing.

Catamenia: at regular time; too short, too feeble, scanty, or suppressed; pains all relieved by flow; the less the flow the greater the pain; flow dark, lumpy, black or acrid; always feels better during menses if flow is normal (Zinc).

Great mental and physical exhaustion; trembling all over; faint with weakness; would constantly sink down from weakness; worse in morning.

Hæmorrhagic tendency: small wounds bleed much (Phos.); blood dark, incoagulable.

For the sore mouth in last stage of phthisis.

**Aggravation.** *After sleeping,* the aggravation wakes him from sleep or he sleeps into the aggravation; during the day; changes in temperature, especially extremes; contact; alcoholic drinks, acid drinks, cinchona, mercury.

**Amelioration.** By sitting upright or bent forward, and throwing the head back; when moving about when out of doors; expectorating watery phlegm relieves asthma.

**Larynx and Trachea.** HOARSENESS, RAWNESS, DRYNESS.

Larynx: *sensitive to touch;* and *whole throat painful to touch;* sensation as from a skin in larynx; as of talons striking in larynx, worse from coughing; painful on bending head backward; swollen, raw, sore, scraping, worse pressing it, is obliged to swallow.

Constriction, dryness, stinging and great rawness in throat, especially pharynx and larynx, with chills and rigors.

Sensation like a small lump, like a button, in pit of throat; feels as if it might loosen, but does not.

Croup: *worse after sleep; seemingly sleeps into the croupy attack;* impending, during diphtheria; awakens suffocating, grasps throat; fears he is dying.

Suddenly something runs from neck to larynx, stops breathing, awakens him at night.

Laryngeal and bronchial attacks, in cyanotic subjects, in cardiac disease, during and after climacteric.

Aphonia: in phthisis, sputum tough and green; from paralysis or œdema of vocal cords.

**Respiration.** *Constantly obliged to take a deep breath,* especially while sitting; desperate fits of suffocation, must sit up in bed.

Asthma: worse; from slightest covering of mouth or nose, the least thing that comes near mouth or nose interferes with breathing; touching throat; moving the arms; *on awaking;* after eating or talking; *after spirituous liquors;* every menstrual nisus; organic heart disease; better sitting up bent forward; during scabies if itching ceases.

Chest: feels constricted; oppressed during sleep; stuffed, short cough with difficult, scanty expectoration; cannot lie down, from a sense of suffocation, must open doors and windows to obtain air.

During heat as of orgasm of blood he is obliged to loosen clothes about neck; sensation as though they hindered circulation of blood, with a kind of suffocative feeling.

Cannot sleep, when he goes to sleep he stops breathing, wakes up suffocating and fears to go to sleep again because of another attack (Cadmium s., Carbo an., Grindelia).

**Cough.** Dry, hacking, worse from touching throat, or in morning after sleep; violent, tickling, from every contact with open air; short, gagging, very fatiguing, from tickling in pit of throat; during sleep, without being conscious of it; after rising from a lying position.

Persistent, gagging cough, from tickling in throat, under sternum, in stomach; has to cough hard and long before he can raise anything.

Children cough in evening on lying down (Bell., Hyos., Sep.); during sleep; faint and weak.

After occasional attacks of hæmoptysis, dry, sore cough, worse at night and early morning.

During cough: pains in epigastrium, abdomen, anus; burning in chest; stitches in chest above and along ribs; salivation; vomiting; discharge of urine; with every single cough, a pain in hemorrhoidal tumor.

Sympathetic cough of cardiac, hepatic or ovarian affections (Con., Kali br., Nux., Sab.).

**Chest and Lungs.** Oppressive pain in chest as if full of wind, better by eructation.

Pain in chest as from soreness.

Burning, stinging, like coals of fire from chest through to shoulders.

Hepatization of left lung; great dyspnœa on waking; stitches in left chest.

Threatened paralysis of lungs, with great dyspnœa and long-lasting suffocative paroxysms.

**Expectoration.** Scanty, difficult, saltish, watery; slimy, blood-streaked; offensive, purulent, with straining even to vomiting; tough, greenish, muco-purulent matter; thin, tough mucus or thick, round, small lumps which fly in every direction (Bad. Kali c.).

After long wheezing cough, suddenly spits up profuse, frothy, tenacious mucus, with relief.

**Relations.** Complementary: *Hepar, Lycopodium. Nitric acid.*

Follows well after: *Ars., Bell. Hep., Nit. ac.,*

Is followed by: *Hep., Lac can., Lyc., Mangan.*

Incompatible: *Acet. ac.*

Tenesmus caused by Lachesis, relieved by *Sepia.*

## LYCOPODIUM.

Farrington says: "I love to extol the virtues of this remarkable drug, which Hahnemann with his infallible law, rescued from its ignominious use as an infant powder and elevated to the highest rank among anti-psorics."

It appears to hold the same relation to the deep-seated chronic affections of the lungs and pleura that Bryonia does to the acute while it vies with Kali. c. in the ulcerative stage of pulmonary affections. For the gradually increasing chronic or sub-acute affection of the lungs; for pneumonia passing into the stage of hepatization, or for the suppurative stage of hepatization; where tubercular affections are allied with or developed upon neglected or badly treated pneumonia or pleurisy, attended with hæmoptysis and purulent expectoration; when pneumonia with pleurisy and effusion supervene upon, or occur during tuberculosis, Lycopodium may, *when properly administered,* not only avert a fatal issue but restore the patient to health. It is also one of the remedies, through whose beneficent action the true Homœopathist may hope to so change and modify the psoric and tubercular diathesis, as to eventually eradicate this scourge of civilization.

**Characteristic.** Adapted to: persons intellectually keen, but weak in muscular development; upper part of body wasted, lower part semi-dropsical; lean, thin, predisposed to lung and hepatic affections (Iod., Phos., Sulph.); deep-seated, progressive, chronic disease; herpetic, scrofulous, tubercular constitutions (Cal., Hep., Iod., Psor., Sulph.).

Children with weak, puny, sickly bodies, well developed heads, but irritable, nervous and unmanageable when sick (Iod.); after sleep are peevish, cross, pushing away angrily every one who approaches.

Affects right side especially, or affections go from right to left—throat, chest, abdomen, ovaries.

Dread of men; of solitude; irritable and melancholy; desires to be alone (Ign., Nux.), or *fears to be left alone* (Ars., Bis., Kali c.).

Weeps all day, cannot calm herself, worse from 4 to 8 P. M.

Over-sensitive; even cries when thanked; easily moved to tears or laughter (Puls.).

Ailments from fright, anger, mortification, or vexation, with reserved displeasure (Staph.).

Complexion: dirty, pale, unhealthy, sickly; face, pale with circumscribed red cheeks, yellow, earthy, furrowed; blue circles around the eyes.

Fan-like motion of alæ nasi (Ant. t.).

Gastric: canine hunger; the more he eats the more he craves; head aches if he does not eat; hungry, but soon satisfied, soon filled up; constant sensation of satiety, good appetite, but a few mouthfuls fill up to the throat; excessive accumulation of flatulence.

Lithic acid diathesis: red sand in urine; on child's diaper (Phos.); child cries before urinating (Bor.); backache relieved by urinating; sallow people with cold extremities, haughty, violent disposition when sick.

Numbness of limbs, sensation as if circulation ceased. One foot hot, the other cold (one hand hot, the other cold, Cinch., Dig., Ipec., Mosch., Puls.); profuse, fetid foot sweat; burning of soles; cold sweat makes the feet sore.

**Aggravation.** *From 4 to 8 p. m.;* after eating and drinking cold things; on alternate days; in warm room or in wind; stooping or lying on left side (Phos.); from stretching arms out; oysters; salt food; moistening diseased parts.

**Amelioration.** Warm food and drinks; on getting cold; from being uncovered; lying on back or sitting up (Ars.).

**Larynx and Trachea.** Hoarseness: remaining after croup; voice feeble, husky; dryness of trachea.

Croup: in last stages, cough loose in daytime, suffocative paroxysms at night—attacks of suffocation alternate with free intervals.

**Respiration.** Breathing: difficult; as if fumes of sulphur had been inhaled; *as if chest was constricted by cramps;* worse lying on the back; loud rattling; whizzing in daytime; with sensation of too much mucus in chest; oppressed, worse from deep inspiration or while walking in the open air.

Shortness of breath; during sleep, in children, worse from every exertion.

Frequent yet fruitless attempts to yawn; child wants to yawn, and cries because it cannot.

Dsypnœa; desire for open air (Kali s., Puls.), goes about with head uncovered; anxious during stormy weather; spirits depressed; when alone fearful, lachrymose, despondent.

**Cough.** Dry, hard, day and night, with painfulness of head and stomach; with difficult respiration; *tickling from tracheal irritation as from fumes of Sulphur* (Ars.); in boys, mentally active but feeble, emaciated bodies; *overpowering, in evening before going to sleep, as if larynx were tickled with a feather;* with scanty expectoration; loose, rattling sputa remains tenaciously; with sensation of shattering in temples and chest, as from a shock; *night, affecting stomach and diaphragm, mostly before sunset.*

Cough, dry and hoarse, day and night; coughs in sleep and violent dry cough in morning; great emaciation.

Cough, shortness of breath, profuse, thick, greenish, yellow, salty, very offensive sputa and rattling in chest (after neglected pneumonia.)

"Cough; deep, hollow; sounds as if patient was bringing up whole mouthfulls of his lungs; sputa stringy and yellow or light rust-colored and easily separated." *Pearson.*

**Chest and Lungs.** Dull aching pains all over lungs, as if they had been overworked, with sensation of constriction of chest as from a tight waist-coat.

Oppression of the chest: as if too full; with a sensation of internal rawness; aggravated by deep inspiration, in open air, after eating. Tearing, pressive pain with a feeling of tightness under clavicles.

Stitches: in left side of chest, extending to back; cutting pains from left scapula into chest; worse during inspiration.

Sensation of continuous pressure in left chest.

Tension as of a hoop about the chest. (Sulph.)

Sensation as if lungs were full of mucus; rattling in chest as if lungs were full of mucus (Ant. t.), especially in bronchial catarrh of infants.

Extensive hepatization and threatened paralysis of lungs.

**A boy, æt. 14, feeble and always remarkably thin, of very weak muscular development, but of sensitive mind and excellent intellect, whose mother had died of consumption, has the following: hard, dry cough day and night; coughs also in his sleep; violent**

dry cough in the morning; great emaciation; so weak he can hardly stand; no secretion of mucus; respiration and pulse very rapid; auscultation and percussion elicit no signs of decided disease of lungs; appetite voracious. Lyc. $^{200}$, two doses. Cough was rapidly cured, and boy soon well as usual.—*C. Wesselhœft.*

Cough almost continual, night and day, a deep, short cough, with occasional expectoration during day of thick, gray matter; in morning greenish and more profuse; hoarseness and dyspnœa, constant desire to clear the larynx; cannot lie on sides, especially left; dullness in upper part of left lung and mucous rattling during respiration; upper part of lung impervious to air, except on full inspiration when there is a prolonged paroxysm of coughing; irregular flushes of heat, with circumscribed redness of cheeks and a slight night sweat; weariness, limbs feel heavy; easily fatigued and out of breath.

Lies on left side, legs drawn up and abdominal muscles relaxed; countenance anxious; respiration 50 to 60 per minute; skin burning hot; tongue coated brown, red at tip and margins; nostrils in rapid fanlike notion; answers quick, anxious and tremulous; mind wandering; great sensitiveness to pressure over right side of chest, particularly over liver, extending over abdomen; pulse, 120 to 130; great thirst; cough frequent and hacking, provoked by putting tongue far out; expectoration streaked with blood, rusty and tenacious; extensive broncophony, extending to under right shoulder blade; crepitation and absence of versicular breathing.

**Expectoration.** Sputa: thick, yellowish, greenish, purulent; fetid pus or blood-streaked mucus; greyish, yellow or dirty; green in morning; bloody; greenish, yellow masses of mucus; granular mucus; tastes salty, or like old cheese; pus in large quantities; whole mouthful of mucus at a time, of light rusty color, stringy and easily separated. Gray, salt expectoration (green, sweetish tasting, Stan.); copious, greenish white.

**Relations.** Complementary to *Iodum.*

Hahnemann says: "It is rarely advisable (unless completely indicated) to begin the treatment of a chronic disease with *Lycopodium;* it is better to give first another antipsoric remedy.

"A moderate dose acts from 40 to 50 days. It may be repeated after the intermediate use of another antipsoric, but a second dose acts less favorably than the first.

"It acts with especial benefit, when it is homœopathically indicated, after the action of *Calcarea* shall have passed over." [Likewise after Psor. or Sulph. ED.].

Lycopodium follows well: *Bry., Cal., Carbo v., Lach., Psor., Puls., Sulph.*

After Lycopodium: *Bell., Graph., Lach., Led., Phos., Sep., Sil.*

For the bad effects of tobacco chewing (*Ars.*).

In the cure of tubercular affections, the low potencies frequently repeated, are practically or at least comparatively worthless.

## MERCURIUS.

The action of Mercury is most profound and extensive. It affects the entire organism. The sensorium, the nerves of reflex function, and those which preside over vegetative life, are all modified in action. The substance of every tissue is more or less altered. The nutrition is depressed in a wonderful degree. Yet this depression is conjoined with a high degree of erethism, so great as often to mask the depression.

On the organic substance, Mercury works eminent destruction in every tissue. The skin, the mucous membrane, the lymphatic glands, the periosteum, the bones and even the alveoli, are the seat of destructive ulceration. Even newly organized deposits, the result of disease, are unquestionably absorbed and removed by Mercury.

The secretions, especially from the glandular surface, are increased and altered. These and those from the intestines betoken destructive changes in the blood composition. The sweat is increased. The color of the blood becomes depraved; witness the sallow complexion and the pale and flabby tongue. *The albuminous constituent of the blood passes away through the kidney—whether from change in the composition of the blood, or from change in the kidney, or from both, pathology has not yet taught us—and we have albuminuria.—Dunham.*

Mercury deprives the blood of one-third of its fibrin, one-sixth of its albumen, one-third or more of its globules, and at the same time loads it with fatty matter.—*Headland.*

This disorganizing action on every part of the entire organism — the blood and mucous membranes especially— which begins with loss of albumen and terminates in hæmorrhage and suppuration of both the pulmonary and renal tissue, is the special sphere of Mercury. Here, too, it has proved curative in albuminuria; in suppuration of the lungs after hæmoptysis; in abscess following hepatization in pneumonia and in the exudative stage of tubercular phthisis, attended with bloody sputum and exhausting perspiration without any relief of sufferings. But in order to accomplish this result it must be exhibited solely on its symptomatic indications, and our experience is that the higher potencies are most effective.

**Characteristic.** Persons with light hair, blue eyes, skin and muscles lax, are more readily affected with Mercury.

In diseases of the bones and periosteum, pains worse at night; glandular swellings, with or without suppuration, but especially if suppuration be profuse (Hep., Sil.); abscess, suppuration slow; cold swellings.

Profuse perspiration attends nearly every complaint, but does not relieve and may even increase the suffering (sweat without relief, Phos. Rhus.).

Hæmorrhages: post climacteric (Lach.); epistaxis worse at night, blood light and hanging in clots from the nose, like icicles; in old women; hæmaturia; scorbutic gums.

Ptyalism: saliva profuse, fetid, coppery, metallic taste; tenacious; soapy and stringy; bloody; worse after midnight.

Tongue: swollen, flabby; shows imprint of teeth (Pod., Rhus.); thickly coated as if covered with a fur, especially in morning; moist, covered with mucus; dirty yellow, with foul breath.

"Mercurial ulcers appear on the gums, tongue, throat, inside of cheek, with salivation; irregular in shape; undefined edges; have a dirty, unhealthy look; lardaceous base surrounded with a dark halo; apt to run together.

"The syphilitic ulcers are circular; attack the posterior part of the mouth; have well-defined edges; surrounded with a coppery hue, and they do not extend from their primary seats."—*Dunham.*

**Aggravation.** By heat of bed, but relieved by rest in bed (agg. by rest in bed, but relieved by heat of bed, Ars.); *at night;* damp, rainy weather; cool air, especially in evening; in autumn, warm days and cold damp nights; uncovering, cold air coming in contact with exposed parts (Bar. c., Hep.); *lying on the right side* (Kali c., Lyc.); perspiring.

**Amelioration.** In open air (Kali s., Puls.); active motion, during work; rest in bed.

**Larynx and Trachea.** Voice; hoarse, rough, trembling, weak; chronic catarrhal hoarseness; profuse salivation.

Aphonia: catarrhal, syphilitic, or from nervous paralysis; from straining the voice before fully recovered from a previous attack (Arum.); spoke in a whisper, every attempt to speak audibly sent blood to face and tears to eyes.

Burning rawness and tickling in larynx; fluent coryza and sore throat; worse from least current of air; no relief from sweat.

Intense catarrhal inflammation of throat; mucous follicles much enlarged; lachrymation; coryza, redness about nose and upper lip; sneezing; dullness of head (Cepa, Kali i.).

**Respiration.** Breath: foul, fetid; short on walking or going up stairs (Ars., Cal.); breathing heavy, anxious, oppressed; suffocation; desire to take a full breath (Bry. —to sigh, Ign.).

Asthma: from fumes of arsenic; worse from tobacco smoke, and in cold air; when coughing or sneezing sensation of spasmodic contraction.

**Cough.** Violent, short, dry, racking; caused by tickling in larynx and upper anterior walls of chest; fatiguing, not allowing him to speak an audible word; sounds and feels as if everything in the chest was dry; in two paroxysms; especially at night or every other night; only at night or only by day; inability to lie on right side (Kali c., Lyc.); with pains in chest and small of back; with stitching pains in chest (Bor., Bry., Kali c.); as if the head and chest would burst; with hoarseness, retching (Lach.), vomiting, epistaxis, diarrhœa; with shortness of breath and ptyalism; with acrid or yellowish mucus, at times mixed with coagulated blood and tasting putrid or saltish; with agg. by, or utter impossibility of lying on right side; with fugitive pains changing place every hour or few hours, or every day or two (like Puls. but more frequently indicated than it).

Moist, barking cough, with sound of moisture in air passages, but no expectoration; convulsive, can scarcely be controlled; in paroxysms, worse from 9 A. M. to 5 or 6 P. M.

**Chest and Lungs.** Acts on lower part of right lung (Chel., Kali c.); stitches through to back; yellow skin and conjunctivæ, and general icteroid symptoms.

Stitches in anterior and upper portion of chest, extending through to back on sneezing or coughing, not when breathing.

Acute pain striking through chest from right scapula.

Stabbing pain in left side under short ribs during every inspiration.

Rush of blood to chest; sensation of dryness, constriction, soreness, burning, extending to throat.

Pneumonia of right lung, sharp stitching pains in right side through chest to or from scapula; bilious symptoms; great tenderness over right hypochondria with heavy sensation in lungs, short dry cough and expectoration of viscid, bloody mucus or bloody saliva.

Suppuration of lungs, after hæmorrhages of pneumonia.

**Expectoration.** Tough, ropy, watery, like saliva; foul, blood-streaked; acrid, yellowish mucus, at times mixed with coagulated blood; offensive, bloody; profuse, of viscid, bloody mucus; of a putrid or saltish taste.

Sputa bloody in consequence of destroyed lung parenchyma.

Profuse debilitating night and morning sweats.

**Relations.** Antidotes: *Aur.*, *Hep.*, *Iod.*, *Lach.*, *Nit. ac.* *Sulph.* according to presenting symptoms.

For the frequent and long continued repetition of low potencies of Mercury, an antidote is often required before much progress can be made with the case. As a rule, when *Hepar* fails to produce the desired result, and the symptoms call for it, according to Guernsey a high potency of Mercurius is often effective.

The use of the red rubber dental plates and mercurial amalgam fillings for the teeth is a source of much irritation of the entire respiratory tract, and many so-called cases of "catarrhal irritation" cannot be cured until the cause be removed and the effects of the mercurial poison antidoted. Here we have found Mercurius, in a high potency, the best antidote and most curative remedy.

Mercurius follows well after: *Bell.*, *Hep.*, *Lach.*, *Sulph.*

After Mercurius follow: *Bell.*, *Cinch.*, *Dul.*, *Hep.*, *Mer.*, *Nit. ac.*, *Sulph.*

Mercury and *Silica* are inimical; do not follow each other well.

Farrington says: "Be careful how you give Mercury, it is a treacherous medicine. It seems often indicated. You give it and relieve; but your patient is worse again in a few weeks and you give it again with relief. By and by it fails you. Now, if I want to make a permanent cure, for instance in a scrofulous child, I will very seldom give him Mercury; should I do so, it will be at least only as an intercurrent remedy."

## MYRTUS COMMUNIS.

Introduced by Dr. Wahle, Myrtus has been successfully used in cases of tubercular phthisis for the distressing chest pains, especially when in the advanced stages it is unsafe to use Acetic acid, Ferrum, Phosphorus or Sulphur.

**Characteristic.** In tubercular phthisis caused or aggravated by mal-treated syphilis.

Every atmospheric change brings an accession of coryza, cough or catarrhal fever.

Catarrhal fevers, with pain in elbow and knee-joints, throat, chest, stomach.

**Cough.** Dry, hollow, from tickling in chest and in upper anterior lobes of lungs (of right lung, Mer.—left, Phos., Sulph.); worse in morning.

**Chest and Lungs.** Stitching pain in left chest, from upper portion straight through to left shoulder blade, worse from breathing, yawning, coughing, quick motion.

Throbbing ache and stitching pain in left infra-clavicular region, extending through to left shoulder blade, worse on deep inspiration; sensation of burning in left chest.

Burning pain in left chest, with tickling, aching, throbbing; acute, pressing pain in chest.

Hæmoptysis in tuberculous subjects; acute pains in superior portions of left chest, radiating backwards to point of scapula of sound side.

Left lung hepatized.

**Relations.** Complementary to *Theridion* in pains through upper chest.

For stitches through upper left chest compare: *Bry.*, *Nat.*, *Phos.*, *Pix.*, *Therid.*, *Sulph.* (in right chest, *Ars.*, *Bor.*, *Bry.*, *Chel.*, *Kali c.*, *Mer.*).

*Pix liquida* has chest pain at the third left costal cartilage where it joins the rib.

*Anisum stellatum* has pain on *either* side at junction of the third rib with its cartilage.

## NATRUM MURIATICUM.

Few remedies have a more profound effect on the functions of nutrition and assimilation than Natrum. Beginning with disorganization of the blood, which soon becomes impoverished, it ends in anæmia, chlorosis, or a general scorbutic dyscrasia, conditions separated by but a single step from tuberculosis or cancer. The skin is harsh, dry, flabby or yellow; the mucous membranes are sore and the secretions acrid and irritating; emaciation is more or less marked; the patient is exhausted in body and depressed in mind, and any slight additional affection is ready to assume the malignant type.

**Characteristic.** Adapted to: teething children and old people; anæmic and chlorotic patients who suffer with catarrhal affections; the mal-treated ague and quinine cachexia; persons debilitated from loss of animal fluids; marasmus from impaired nutrition.

Great emaciation: loses flesh while living well (Cal., Iod.); throat and neck thin and shrunken; emaciates rapidly during summer complaint; weariness and complete prostration of vital forces.

Great liability to take cold (Cal., Kali c., Phos.).

Anæmia, from loss of vital fluids (Cinch., Fer., Kali c.).

Chlorosis, with dirty, flabby, torpid skin.

Tendency to dryness or erosions of mucous membranes; secretions acrid, irritating, scanty; smarting, burning at juncture of mucous surfaces (Sulph.).

Catarrhal affections of mucous membranes, with copious secretions of clear, watery, frothy mucus; white mucus like boiled starch, full of bubbles; albuminous, like white of egg.

Squirming in the nostril as of a small worm, in hay asthma.

Lachrymation; tears stream down the face whenever he coughs.

The hair in nursing women falls out when touched.

**Aggravation.** In summer; heat of sun or stove; at the sea shore, by sea air (Syph.); mental or physical exertion; manual labor; rapid motion; deep inspiration; evening in bed, or becoming warm in bed; lying down; drinking or *empty swallowing*; acid food; talking, reading, writing; close air of room.

**Amelioration.** In open air; mountain air (Syph.—worse in the mountains, better at the sea shore, Med.); cold bathing; sitting up; fasting; lying on right side.

**Larynx and Trachea.** Voice: faint, weak from ill effects of speaking (Arum, Arg. n., Kali. b.); rough with scraping in larynx.

Hoarseness: throat sore, larynx dry; unable to talk or sing; in morning with accumulation of mucus; with pain on both sides of larynx, worse right.

Soreness and sensation of dryness in larynx and trachea.

*Accumulation of transparent mucus in larynx in morning.*

Dry catarrh of larynx and trachea; cough dry, tickling, or with yellow or bloody sputa; voice hoarse; breathing anxious, oppressed.

**Respiration.** Breathing: anxious, oppressed, wheezing; short on walking fast; difficult, on ascending steps or from manual labor; worse in open air and when exercising arms; oppressed, anxious, in the anæmic or chlorotic.

Asthma, with profuse, watery or frothy mucus.

Attacks of suffocation.

Breath hot; offensive.

**Cough.** *Irritation to cough, caused by empty swallowing.*

Cough: from tickling in throat or pit of stomach; short, hacking, obstinate; dry, with rattling in chest; spasmodic, with involuntary urination (Caust., Phos., Puls., Scilla., Staph., Verat.); with stitches in liver (Kali c., Mer.); with long uvula, worse lying (Alum.); with vomiting of food (Fer.); with palpitation; in the morning, sputum of yellow or blood-streaked mucus with bursting pain in forehead and shocks or beating as of hammers; with loss of breath day and night.

Moist râles are heard but patient cannot expectorate.

Chronic cough of the tuberculous.

**Chest and Lungs.** *Pain like a cutting cramp through left chest to scapula* (Myr., Therid.).

Tearing, stitching pain from l. upper region of chest to shoulder joint.

Stitches: in chest and sides, especially on deep inspiration and when coughing; under left rib; along sternum.

Sore pain or bruised feeling in chest; sensation as from tension.

Lungs feel raw and sore from continual coughing.

Oppression of chest, as if constricted, as if too tight.

Pains in upper middle chest going through to right shoulder, worse after eating and from talking.

Pneumonia: much rattling; mucus clear, watery, difficult to expectorate.

**Expectoration.** Copious, transparent, watery, frothy; albuminous, like white of egg.

Mucus: white, like boiled starch; full of air bubbles; yellow, or blood-streaked; bloody; flat, salty, sourish.

In clotts, especially in the morning; early in the morning; of pure blood.

**Relations.** Complementary: *Apis.*, *Arg. nit.*

Natrum follows: *Bry.*, *Cal.*, *Cal. p.*, *Fer. p.*, *Kali m.*, *Kali p.*, *Kali s.*, *Nat. s.*, *Puls.*

Is followed by: *Sep.*, *Sulph.*

For the excessive use of salt in food, *Phos.*

For bad effects of sea bathing, *Ars.*

For bad results of cauterization of any mucous surface with nitrate of silver, Natrum is the antidote.

"This remedy cannot often, in chronic cases, be repeated without an intercurrent."—***Dunham.***

"When you potentize a drug you will find that you no longer have to depend upon the ordinary laws of dietetics, hygiene or chemistry, but you step into a realm which is distinct from the laws of chemistry and of physics. Medicines are then no longer subject to the coarser laws. * * * It is true of Natrum mur. as of most other drugs, that the high potencies act best."—*Farrington.*

## NATRUM SULPHURICUM.

The hydrogenoid constitution, so well described by Grauvogl, as one extremely sensitive to every change from dry to wet; one that is always worse in wet, rainy weather; from living in damp houses, in basements, or working in cellars; one that is always made worse by exposure to an atmosphere laden with moisture, to fresh water lakes or even the sea air; and persons who cannot eat vegetables or juicy fruits that thrive near water. They feel best on a clear, dry day, whether hot or cold. This constitution he also pointed out as the one in which the gonorrhœal poison found a most congenial soil, and, once planted, took deepest root and left its most pernicious effects. For the correction of this hydrogenoid constitution and the eradication of the gonorrhœal infection, Grauvogl called the attention of the homœopathic world to Natrum sulph. as an ally of Thuja — as another great remedy for the cure of the sycotic miasm pointed out by Hahnemann. And he insists that *the constitution must first be corrected*, if we would permanently cure the local gonorrhœal discharge as well as its constitutional effects. Natrum sulph. holds the same relation to sycosis, that the anti-psorics do to syphilis; if we would completely cure a case engrafted on a psoric base we must first correct the constitution.

Persons of this constitution are very prone to attacks of asthma with every change from dry to damp weather, which may finally terminate in a bronchial or pulmonary phthisis, not true tubercular consumption, perhaps, but one attended with equally fatal and destructive results. Here, too, the constitutional diathesis must first be corrected ere the pulmonary affection can be cured, and this may call for Natrum sulph. as the remedy.

The correction of the constitutional diathesis on which the various forms of tuberculosis depend, is a preliminary step as essential for the cure of this affection as it is for the cure of sycosis, as pointed out by Grauvogl. The cure of consumption can be effected in no other way. Wherever in the clinical records of our school a case of tuberculosis has been cured, it has invariably been done by a remedy or remedies, which, given for the totality of the constitutional symptoms, first changed or eradicated the diathesis by which the disease was fostered. The sooner we abandon the erroneous teachings and deceptive methods of the dominant school—treating the disease instead of the patient—and return to the strict inductive method of Hahnemann, the better for our patients and the school we profess to represent.

**Characteristic.** Suited for the sycotic constitution of Hahnemann; the hydrogenoid constitution of Grauvogl.

For the chest catarrhs and asthmatic complaints of children and rapidly growing youth.

An attack of humid asthma with every change to damp, wet weather.

"Mild music, especially the sad strains; mellow light that comes through colored glass in church windows, make her sad."—*Kent.*

Satiety of life; must use all self-control to prevent shooting himself (drowning himself, Bell.), attended with wildness and extreme irritability.

Mental effects of injuries about the head, mental traumatism (Hyper.—compare mental symptoms of Natrum family).

Mouth tastes badly; full of slime and mucus; tongue coated with slimy mucus (golden yellow, Nat. phos.—

thick yellow at base, Mer. iod.); sure he is bilious, mouth tastes so badly.

**Aggravation.** In damp, wet, rainy weather; in a damp atmosphere at lake or sea-side; living in damp rooms or basements.

**Amelioration.** In a dry, clear atmosphere, whether hot or cold.

**Larynx and Trachea.** Frequent scraping in larynx, cough completely dry. Hoarseness. Dry cough, night and morning from tickling in the larynx and trachea.

**Respiration.** Great dyspnœa, desire to take a deep breath during damp, cloudy weather; short breath when walking.

Difficult breathing, with sensation of fullness in stomach extending up into chest.

After sunset, oppressed feeling in chest and sensation of a ball in throat, with tendency to cry.

Asthma: with young people from a general bronchial catarrh; with every change to damp weather; humid, especially of children; with every fresh cold; hereditary, in growing youth, of a deep-seated sycotic nature; when the chest is filled up with mucus, great rattling and expectoration of large quanties of white mucus.

**Cough.** With sensation of "all-gone" empty feeling in chest, a sense of weakness in chest, must hold the chest with both hands when coughing for support, to relieve the weakness (must hold the chest because of pain and soreness, feels as if it would fly to pieces, Bry., Phos.—must sit up and hold the head, Nic.).

Frequent, with stitch in left side of chest, short-breathed if coughing when standing; dry, with soreness in chest, and rough feeling in throat, especially at night; loose, from tickling in throat; with purulent sputum and pain in base of left lung, about last ribs.

**Chest and Lungs.** Pressure on the chest as of a heavy load. Oppression of the chest in the morning on waking.

Stitching pain running up from abdomen to left side of chest.

Weak, "all gone," empty feeling in chest (Stan.—weakness of chest before and during menses, Graph.).

A piercing, penetrating stitch in left side near nipple.

Sycotic pneumonia or consumption, inexpressible agony.

**Expectoration.** Thick, ropy; yellowish-green; muco-purulent; every cough brings up a mouthful of pus-like sputa (Lyc.).

**Relations.** Complementary to *Thuja* for deep-seated sycotic constitutional affections, or where a sycotic condition is engrafted on a hydrogenoid base.

## NITRIC ACID.

In the treatment of pulmonary affections, either acute or chronic, the Homœopathist often encounters a cachexia or dyscrasia in constitutions impaired by mercurialization, psora or syphilis, in which his best selected remedies fail to relieve. The patient is broken down mentally and physically. Is weak, irascible, irritable; anxious and restless; suffers from paroxysms of blasphemous rage, and is tormented with unbearable pains in bones and periosteum during wet and changable weather. Ere such a patient can be cured, the invaluable antidotal powers of Nitric acid may have to be called in requisition.

**Characteristic.** Most beneficial to thin persons of rigid fibre, dark complexion, black hair and eyes—the brunette rather than the lax muscular fibre of the blonde—nervous temperament.

"It is, moreover, more suitable to those chronic patients who are disposed to looseness; very seldom useful to those who suffer with constipation."—*Hahnemann.*

Persons suffering with chronic disease who take cold easily (Cal., Kali c., Nat. s., Phos.), yet can endure but little covering.

Old people; diarrhœa and great weakness, with heaviness and trembling of limbs.

Excessive physical irritability.

"Sensations: as though *a sharp splinter were being stuck into the affected parts on the slightest contact*—in throat on swallowing, in ulcers on touch; as if a band were around the affected parts; as though a band were around the bones; jerking pain in inner parts."—*Guernsey.*

Diseases which depend on some virulent poison—mercury, scrofula, syphilis; in broken-down, cachectic constitutions; hateful, vindicative disposition, attacks of rage with blasphemy.

Pains: *sticking, pricking, as from splinters;* suddenly appearing and disappearing (Bell., Mag. phos.); on change of temperature or weather; during sleep; gnawing here and there as from ulcers forming; *are not well borne.*

Affections of mucous outlets of body—mouth, rectum, vagina, bladder.

Anxiety about his illness; constantly thinking about his past troubles; fear of death; mind weakened and wanders.

Ozena: with ulcers; obstructed, with dropping of clear or bloody water; discharge yellow, fetid, corroding; green casts every morning.

Diarrhœa: great straining, but little passes; as if stayed in rectum and could not be expelled (soft stool requires great straining, Alum).

Pain as if rectum or anus were torn or fissured; violent cutting pain after stool lasting for hours (Sanicula).

Urine: scanty, dark brown, strong smelling like horses' urine; cold when it passes; like the remains of a cider barrel.

Ulcers: easily bleeding; pricking pains, especially on contact; irregular, zigzag edges; raw looking base; after mercury or syphilis or both, engrafted on a scrofulous base.

**Aggravation.** Evening and at night, especially after part of night; contact (Hep.); change of temperature or weather; on waking (Lach.); while walking, eating, rising from a seat; from milk; abuse of Mercury; *lying down.*

**Amelioration.** Riding in a carriage; eructating.

**Larynx and Trachea.** Hoarseness: from long talking; so that she could not speak; with coryza; with scratching and stinging in throat; in morning.

Voice rough, feeble.

Sticking pains in region of larynx.

**Respiration.** *Loss of breath, palpitation and anxiety on ascending steps.*

Breathing, oppressed, caused by cough; catching; croupy, hoarse; painful, labored, stridulous; difficult, rough, whistling; slow and feeble; short and anxious. Sudden loss of breath while walking slowly.

**Cough.** Dry, croaking, barking, from tickling in larynx and pit of stomach; worse at night, and in daytime when lying down; frequent, hacking, with irritation and crawling in larynx after eating; *rough, dry before midnight; with sticking pains in the rectum while coughing.*

Profuse, fluent coryza, hoarseness and cough with stitches in the throat on every paroxysm.

Violent, shaking, with expectoration of blood mixed with clots.

**Chest and Lungs.** Rush of blood to upper part of chest.

Feeling of fulness in the chest, with anxiety, heat and palpitation.

Rawness and soreness of the chest, as if ulcerated.

Whistling and râles in the chest on inspiration.

Some signs of commencing tubercles in right apex.

Sore pain in chest, as from something sore in it, when breathing or coughing.

Cramp-like pains in the chest.

Stitches: in r. chest, scapula and larynx, as if a sliver was there; in upper part of r. chest, inside of ribs extending to abdomen and back; in r. chest on breathing; in r. chest at night, while lying on the back; violent in r. chest in evening after lying down.

Stitches: violent in l. chest, in morning, making breathing difficult; in middle of l. chest when coughing or breathing, especially on lying down in bed; in upper part of sternum, l. side, from within out.; in l. side of chest toward the back, and below l. mamma.

Pressure in l. chest.

Soreness at lower end of sternum.

**Expectoration.** Sputum: yellow, acrid, bitter, salty; sour, offensive; raised with difficulty; morning cough, followed by greenish-white casts, as if from air-cells; of black, clotted blood; brown, bloody mucus; muco-purulent.

Nitric acid is indicated when the following symptoms are present: The patient is thin, dark hair and eyes; morning hoarseness; pronounced dyspnœa, patient cannot speak without getting out of breath; frequent hæmoptysis, profuse and bright red; chest, extremely sore to touch; sharp stitches through right chest (more rarely left) to scapula; pulse rapid, intermittent, and least physical exertion causes palpitation and dyspnœa; frequent and sudden congestions to chest, indicative of tubercular ulceration, with hectic fever and exhausting perspirations at night or in early morning; heat comes in flushes, of single parts or over entire body, while he is cold on uncovering or getting into bed; sputa, brown, bloody, purulent, offensive, or of a dirty green color and easily expectorated. Add to this poisoning with syphilis or mercury and the picture is complete.

**Relations.** Complementary: *Arum triph.*, *Caladium.*

Follows well after: *Cal.*, *Hep.*, *Kali c.*, *Phos.*, *Puls.*, *Sep.*, *Sulph.*, *Thuja.*

Is followed by: *Cal.*, *Calad.*, *Puls.*, *Sulph.*

**Inimical to *Lach.*: should not be used before or after it.**

"Nitric acid so closely resembles *Mercury* in many particulars, that it is often very difficult to distinguish between them; Nitric acid is usually applicable in dark haired people, while Mercury acts best in light haired persons."—*Guernsey.*

## PHOSPHORUS.

The action of Phosphorus is deep-seated, long-lasting and profound. When administered wisely it is one of the most helpful agents in the Materia Medica. But, as usually given, it is a matter of grave doubt if it has not frequently hastened the result it was intended to postpone or prevent.

Phosphorus is a most powerful antipsoric, but it can be seldom used with advantage when the genital organs are weak, or when the sexual desire is depressed, or when the menses are delaying, or when the vital powers are weak and exhausted.—*Hahnemann.*

Unless you give this drug cautiously, you precipitate what you would prevent. Be certain that it is the remedy, and do not give it too often or you will hasten the process you are anxious to avoid. I would not advise you to give Phosphorus in well-marked tuberculous patients. If tubercles have been deposited in the lungs you should hesitate before giying it, unless the "picture" calling for it is so strong that you cannot possibly make a mistake.—*Farrington.*

Dr. Chargé, of Paris, on being asked how he used Phosphorus, replied:

"I once asked Rummel that question and received the answer: 'I always succeed with Phosphorus, when I know how to give it.' 'What do you mean by knowing how to give it?' Rummel replied: 'A dose every fifteen days.'"

Dr. Chargé adds: "Rummel is right. In certain stages of phthisis some drugs, and especially Phosphorus, may produce the most horrible ravages when we repeat the doses too frequently."

This is true of Acetic ac., Ferrum, Sulphur and many, perhaps all of the metals.

To obtain the best and most lasting curative results, we can follow no better rule than the one given us by Hahnemann: Wait as long as improvement continues, whether it be fifteen or fifty days. This method is practical and applies to all remedies, in all potencies, as well as to Phosphorus and the metals.

But it is for the correction of the diathesis in the incipient and early stages, before tubercle is deposited, that Phosphorus and its congeners are best adapted and will be most effective.

**Characteristic.** Adapted to tall, slender, narrow-chested persons of florid, sanguine temperament; with fair, delicate skin, long silky eyelashes, and of easy, graceful manners; quick, lively perception and highly sensitive organization; brilliant mental faculties, but defective in physical development.

Young men and women who have grown too rapidly, or those with an inherited tendency to tuberculosis who have suffered from bone diseases in childhood; are inclined to stoop in walking and to be hollow-chested (Sulph., Tub.); are anæmic, chlorotic (compare Cal., Kreos.).

Great emaciation (Ars., Iod., Kali iod., Lyc.).

Pronounced nervous debility; trembling; weariness; weakness and prostration; from loss of animal fluids.

Hæmorrhagic diathesis: small wounds bleed profusely (Fer., Lach., Kreos.); metrorrhagia in cancer, pouring out freely and then ceasing for a time; vicarious, from nose, stomach, rectum, bladder.

Pains: acute, especially in right chest, worse from slightest pressure on the intercostal spaces and when lying on left side; tearing, drawing, tensive, excited by slightest chill; body feels bruised, with sensation of coldness.

Over-sensitive to external impressions (Nux): light, noise, touch, odors; faints from the smell of flowers.

Patients who catch cold very easily (Cal., Kali c.); have frequent attacks of bronchitis; constriction of lungs (not chest) with every little cold; frequent and repeated hæmorrhages.

Irritability of mind and body; prostrated by the least unpleasant impression; very excitable; easily angered, then becomes vehement, from which he afterwards suffers (Col., Nit. ac.); the weaker the mind becomes, the more marked is the sexual excitement.

Sensation of weakness and emptiness in pit of stomach, especially at 10 A. M. (11 A. M., Sulph.); awakens hungry at night, feels that he must eat or would faint if he did not.

As soon as water becomes warm in the stomach it is thrown up.

Constipation: feces, slender, long, dry, tough and hard like a dog's; voided with difficulty (Caust., Prunus).

Diarrhœa: *as soon as anything enters the rectum;* profuse, pouring away as from a hydrant; watery, with sago-like particles; the anus remains constantly open (Apis); involuntary.

During pregnancy: unable to drink water; sight of it causes vomiting; must close her eyes while bathing (Hydroph.).

Acts most beneficially when patient suffers from chronic diarrhœa (Nit. ac.).

Adapted to the second stage, and like Arsenic and Sulphur takes up a bronchitis or pneumonia where Bryonia leaves off.

Phosphorus patients nearly always take cold in the chest; it next attacks the nose but without relief to the chest (the reverse of Ars., Carbo v., Cepa, Euph.).

**Aggravation.** Evening before midnight; from light, odors; *before and during a thunder-storm;* change of weather; *lying on left side* (Nat. m., Puls.) or back; when alone; open air intolerable; *going from warm into cold air* (reverse of Bry.); laughing, talking, singing, reading, eating, drinking.

**Amelioration.** In the dark; *after sleep; lying on right side;* from cold food or drinks; rubbing, mesmerizing; in the open air, if cool.

**Larynx and Trachea.** Larynx feels as if lined with fur (with feathers, Dros.).

Hoarseness: *with cough and rawness in larynx, trachea and bronchi; in the morning*, often gets worse towards evening; with rough, husky voice; unable to speak above a whisper; larynx sensitive to touch.

Aphonia: complete with great prostration; from prolonged loud talking; catarrhal or nervous (Bapt., Bell., Sulph.).

Cannot talk, the larynx is so painful (compare Sulph.).

Croup: catarrhal or membranous; as a prophylactic to prevent frequent relapses (Sulph.); in the last stages, when vital forces are exhausted, rapid sinking, cold sweat, sunken face, dropped jaw and rattling breathing.

**Respiration.** Breathing: *always short after coughing;* oppressed; difficult; labored; anxious, panting; worse after eating; impeded by rapid walking.

Dyspnœa: *with extreme prostration;* on taking a deep breath; with transient nausea; as though from want of air though frequently took a deep breath; with tension, chest feels full and heavy, as after a full meal; sense of suffocation.

Spasmodic constriction of chest (of larynx, Sulph.). Nightly suffocative attacks, as if lungs were paralyzed, or as if breathing through cotton.

**Cough.** *Dry, constant, from tickling in the throat-pit; with tightness or constriction across upper third of lungs* (not the band-like sensation across the chest of Cactus or Sulphur, but as if *the lungs* were constricted); *spasmodic, hollow, from tickling irritation under sternum;* must press the chest with the hand for relief (Bry., Nat. m., Nat. s.); with sticking in epigastrium; nervous, when any one enters the room (compare Nat. m.); *with soreness and roughness in larynx;* with stitches over one eye, splitting headache and burning in throat and larynx; with pain from epigastrium through to spine; harsh, irritating, with bloody or muco-purulent expectoration; *which shakes the whole body.* The cough is worse by change from warm to cold air, from laughing, talking, eating, drinking, and may be compared with Bell., Caust., Cepa, Dros., Lach, Rumex.

Involuntary stool and urine, while coughing.

The cough sounds as if the chest were dry, and the chest feels as if *dry* inside.

**Chest and Lungs.** *Stitches in left chest, better by lying on right side.*

Chest: *oppression of the chest,* must sit up in bed when coughing or expectorating; anxiety and pressure of chest, amounting to real suffocation; heaviness of the chest, as if a weight were lying on it.

Congestion and rush of blood to chest, worse from any emotion. *Great tightness across the chest.*

Burning and piercing soreness and constriction in the chest, especially behind the sternum.

Infra-clavicular depression, left side; "falling in" of chest walls (Cal.).

Pneumonia: when bronchial symptoms co-exist; during the latter part of the period of deposit and in the early part of absorption; chest is sore, bruised, with great weight and tightness over chest; burning, rawness and dryness of the air passages of the upper chest.

**Expectoration.** Frothy, pale-red, rust-colored, bloody; white and tough; purulent or muco-purulent; salt, sour or sweet; sticky, cold mucus; nummular (Ars., Iod.).

"Sputa of a dirty or muddy color, flying when falling and somewhat resembling buckwheat batter."—*Pearson.*

**Relations.** Complementary: *Arsenicum* and *Cepa,* with the former of which it is in isomorphic relation.

Phosphorus antidotes the ill effects of the excessive use of salt, iodine, camphor.

Follows well after: *Cal., Cinch., Kali c., Lyc., Nux., Psor. Rhus., Sil., Sulph., Tub.*

Is followed by: *Ars., Ars. iod., Carbo v., Rhus., Sulph.*

Inimical: *Causticum.*

## PSORINUM.

Hahnemann says, *Chronic Diseases*, Vol I. page 196:

> I call Psorinum a homœopathic antipsoric, because if the preparation of psorin did not alter its nature to that of a homœopathic remedy, it never could have any effect upon an organism tainted with that same identical virus. The psoric virus, by undergoing the processes of trituration and succussion, becomes just as much altered in its nature as gold does, the homœopathic preparations of which are not inert substances in the animal economy, but powerfully acting agents.

Farrington says, *Lectures*, page 139:

> Objection has been made to Psorinum, which you know is the product of the itch vesicle, on the ground that it is nasty and filthy. This is certainly absurd, because no one would for one minute entertain the idea of administering it in a low potency; and this being the case, no one will maintain that there is anything nasty or disagreeable to one's feelings in administering to a patient Psorinum in the 200th potency.

But objections have been made, and made, too, by some estimable men, on the ground stated by Farrington. For this reason they do not use this invaluable antipsoric and in consequence fail to cure many chronic cases that can be cured by no other remedy, for there is no such thing in homœopathic practice as substitution. To all objections of this kind the following practical and unanswerable reply is made by Dr. Bell in his *Therapeutics of Diarrhœa:* "Whether derived from purest gold or purest filth, our gratitude for its excellent services forbids us to enquire or care."

It is about the only remedy, so far as we know, that will eradicate the psoric diathesis upon which that hydra-headed affection, hay fever, depends ; and here, as in many other affections, it has no substitute. But its use must depend upon a strict individualization — the totality of the symptoms — and not because our diagnosis is that of hay fever, or any other disease. For years, in our practice, it has been what Hahnemann termed it, *the great antipsoric,* out-ranking Sulphur in the frequency of its indications as well as in its wonderful work, the correction of the psoric constitution.

**Characteristic.** ADAPTED ESPECIALLY TO THE PSORIC DIATHESIS OF HAHNEMANN; to the bad effects, the diseases resulting from suppressed eruptions — scabies, herpes, eczema, etc., (Sulph.).

Extremely scrofulous patients ; nervous, restless, irritable, easily startled ; sleepless *from intolerable itching*, or frightful dreams of robbers, dangers, etc.

In chronic diseases, when well selected remedies fail to permanently improve (in acute diseases, Sulph.); when Sulphur or the indicated antipsoric fails to act.

Great weakness, especially when no organic lesion can be detected ; from loss of fluids ; remaining after acute diseases ; of all the joints of the body, as if they would not hold together ; without any apparent cause.

Debility : with lack of reaction after severe acute diseases — diphtheria, pneumonia, typhoid, typhus — appetite will not return; is sad, low-spirited, depressed in mind, weak in body, hopeless of recovery, thinks he will die, sweats from least exertion or has exhausting night sweats.

Children are pale, delicate, sickly; sick babies will not sleep day or night, but worry, fret, cry (Jalapa); child good, plays all day, but restless, troublesome, screaming all night.

Baby has a filthy smell, even after bathing (the odor of the stool follows him despite bathing, Sanicula, Sulph.).

*Great sensitiveness to cold air or change of weather;* wears a fur cap, overcoat or shawl, even in hottest summer weather (Hep.); is easily affected by stormy weather; feels restless for days before and during a thunder storm (Phos.).

All excretions, diarrhœa, leucorrhœa, menstrual flow, perspiration and eructations have a carrion-like odor (Pyrogen).

Sad, depressed; thinks he is very ill when he is not; hopeless, thinks he will die; despairs of recovery; especially after fevers, better from nose bleed; religious melancholy (Melilotus).

Every moral emotion causes trembling.

Severe ailments from even slight emotions.

Hungry in the middle of the night, must have something to eat.

Vomiting of pregnancy, obstinate cases when Lactic acid or the best selected remedy fails.

Always feels better just before a severe attack.

After the sweat, all the complaints cease.

Hair: bushy, dry, rough, lustreless; matted at tips, sticks together, tangles easily (Bor., Lyc.).

*Cough returns every winter.*

**Aggravation.** In stormy weather; before and during a thunder storm; evening, before midnight; in open air; when sitting; itching, worse from warmth of bed (Mer., Sulph.); talking, reading, drinking.

**Amelioration.** *Lying down;* sensitiveness to cold, better in a warm room, and from covering up; by perspiring; *before the attack.*

**Larynx and Trachea.** Hoarseness; in throat and chest; when talking, mucus adheres to larynx; talking is very fatiguing.

Suffocation and crawling sensation in the larynx, producing a paroxysmal, dry, hacking cough.

**Respiration.** Short breath, worse in open air; relieved by riding, *lying down,* and light physical exercise.

Dyspnœa; anxious, with palpitation; worse sitting up to write, worse the nearer the arms are brought to the body, must keep arms spread wide apart. Chest expands with difficulty.

Asthma: hay fever, with violent attacks of sneezing, profuse coryza and lachrymation; appearing regularly every year with first warm days of Spring, or sometime during

August; brought on by odor of flowers, freshly cut grass, dust, *heat of sun or stove*, can go out only after sun-down or on cloudy days.

**Cough.** Dry, hacking, with shortness of breath, provoked by tickling in trachea; coughs a long time before he can expectorate; with a sensation of heaviness in chest; from talking, laughing, or reading aloud; with weakness or soreness under sternum; in evening, with pains in chest and throat; *in morning on waking and in evening on lying down*, WITH EXPECTORATION OF GREEN, PUS-LIKE MUCUS; with pain in right hypochondrium; loose, racking, spasmodic.

**Chest and Lungs.** Stitches from behind forward in chest and back.

*Burning, cutting, pressing, oppressive pains in chest; sore as if ulcerated*, under the sternum; worse from motion, coughing, laughing, better when lying down.

*Excruciating pains in the chest.*

Oppression of the chest; as if a heavy load were pressing it down (Phos.).

Mrs. C. R. æt. 46, emaciated, hectic, exhausted; cough loose, racking, spasmodic; expectoration, *copious, offensive, bloody, chiefly at night;* craving hunger, and sinking, gone sensation; craves acids, coffee, hearty food; distress and unrest from flatus; constipation; *copious, offensive leucorrhœa;* vertex pressure. Thirteen years ago the itch was suppressed by ointments; the scalp itches occasionally without eruption. At the suggestion of W. P. Wesselhœft, Psor. 200 brought out an eruption in ten days, which itched violently, and cured the case.—*C. F. Nichols.*

Threatening or fully developed phthisis.

**Expectoration.** Green mucus, nearly like matter, worse mornings and evenings; copious, offensive, bloody, chiefly at night; tasting like old cheese; of stringy, ropy, foul-tasting mucus.

Hæmorrhage from lungs and bowels.

**Relations.** Psorinum is followed well by *Alum.*, *Bor.*, *Hep.*, *Sulph.*, *Tub.*

Should be given during winter, once or twice a month, to eradicate the psoric cause and prevent return of hay fever.

The low potencies are worthless and should never be used.

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## PULSATILLA.

There are a class of cases frequently met with of anæmic or chlorotic habit which threaten to terminate in phthisis florida, unless speedy relief be given. The first marked failure in health is referred to the puberic age, and they have "never been well since." With the postponed, scanty or defective menstruation, there sooner or later appears a troublesome cough, and more or less severe pulmonary hæmorrhage, conditions which call for Pulsatilla, and which unless promptly arrested are prone to terminate in destructive lesions of lung tissue.

**Characteristic.** Is especially adapted to the diseases of women and children; to persons of indecisive, slow, phlegmatic temperament; sandy hair, blue eyes, pale face; easily moved to laughter or tears; inclined to grief and submissiveness; affectionate, mild, gentle, timid disposition.

Almost impossible to detail her ailments without weeping (Lyc.).

Symptoms ever changing; no two attacks, no two chills, no two stools alike; very well one hour, very miserable the next (Lac can.).

Pains: drawing, tearing; erratic, rapidly shifting from one part to another (Kali b., Lac can.); accompanied with chilliness, the more severe the pain the harder the chill; appear suddenly, disappear gradually (appear and disappear gradually Stan.); tension, which increases until very severe and then "lets up with a snap."

Thirstlessness with nearly all complaints (painlessness with most complaints, Stram.).

Gastric ailments from eating rich, fat food, cake, pastry, pork or sausage; the sight or even thought of pork causes disgust.

Anæmia, chlorosis or other constitutional ailments occurring at puberty; menses suppressed from getting the feet wet; too late; flow scanty, slimy, intermittent, increases in forenoon, with evening chilliness.

Sleepless first part of night; sleeps late in the morning (reverse of Nux).

*Longing for fresh, open, cool air.*

**Aggravation.** *In warm, close room;* lying on left or painless side (Nat. c., Nat. m., Phos.); in evening, before midnight; in twilight; during menstruation.

**Amelioration.** *In the open air;* lying on painful side (Bry., Cal.); cold room; from cold things (Sec., Verat.).

**Larynx and Trachea.** *Violent tickling and scraping in the larynx, causing dry cough and bringing tears into the eyes.*

Aphonia: unable to speak a loud word; with roughness of throat; nervous, returns at every emotion; coming and going.

Sensation of constriction in the throat, as if something prevented speaking.

**Respiration.** Dyspnœa: as from fumes of sulphur; at night, as if throat or chest were constricted; when lying on the back; in lower portion of the chest in the morning, after dinner.

Oppression of chest: on walking fast; ascending a height or going up stairs, or exercising.

Asthma: in evening, especially after a meal; of children, after suppressed rash; in hysteria; with suppressed menses.

**Cough.** Constant in the evening after lying down; dry at night, disappears when sitting up in bed, but returns on lying down (Bry., Hyos., Sang.); at night, when warm in bed, preventing sleep; causing dryness of the throat; shattering, spasmodic, often in paroxysms of two coughs each (Mer.); from irritation in pit of stomach; with suppressed menses; caused by dry, itching, tickling, scratching in trachea and bronchi, as from the fumes of sulphur; loose, with expectoration in morning and during the day, dry and without expectoration in evening and at night.

**Chest and Lungs.** Soreness in chest, sub-clavicular region in apex of either lung, worse when lying on that side or pressing against left chest.

*Cannot bear pressure on the well side if it be made toward the diseased side.*

Lying on left side causes anxiety, palpitation and want of breath.

Pain in chest as if ulcerated (worse left); paroxysms of burning pain.

Stitches in chest, when lying, coughing, taking full inspiration.

**Expectoration.** Of yellow mucus; greenish, purulent; bitter, salty, nauseous, bilious taste; has a biting, burnt taste, like the dregs of an old pipe; dark or black pieces of coagulated blood.

Hæmoptysis; blood dark, coagulated; in anæmic or chlorotic girls, menses suppressed; phthisis florida.

**Relations.** Complementary: *Sulphuric Acid, Lycopodium* and very often *Silicea,* after Pulsatilla has acted for a time curatively.

Pulsatilla follows well after: *Ars., Bry., Lyc., Phos., Sep., Sil., Sulph.*

Pulsatilla is very often one of the best remedies with which to begin treatment of a chronic case (Cal., Sulph.),

Anæmic or chlorotic patients coming from Allopathy, complicated by the abuse of iron, quinine and "tonics," generally require Pulsatilla as the first and often as the only remedy to complete the cure.

## SANGUINARIA

Has been successfully used for the hectic of bronchitis, pneumonia or consumption, fever beginning at 2 or 3 P. M. daily and attended with circumscribed redness of the cheeks. Both the breath and sputa are very offensive. Gastric symptoms are apt to predominate.

**Characteristic.** Adapted to persons of a weak, slow, torpid circulation, and as a consequence persistent coldness of the extremities, pallor of skin, and extreme sensitiveness to atmospheric changes.

Persons who present a history of chronic sick headache; occurs every seven days; pain rising from the occiput over the vertex and localizing over right eye; begins in morning, increases during the day, lasts till evening, sleep gives relief; aggravated by noise, odors or slightest jar; usually terminates in vomiting (compare Iris, Mel., Nat. m., Sil.).

For chest affections occurring at the climacteric.

Flushes of heat passing over the body, or flying from head to stomach, or from chest to stomach or abdomen.

**Larynx and Trachea.** Throat so dry seems as if it would crack; better inspiring cold air (worse inspiring cold air, Cistus).

Chronic dryness of the throat with soreness, redness and swelling.

Aphonia: voice weak, with a sensation of general prostration and weakness.

**Respiration.** *Asthma, especially after "rose cold;" worse from odors.*

Breathing: short, accelerated, constrained; painful, sighing; extreme dispnœa; cheeks and hands livid.

Inclination to take a deep breath, which increases constriction and causes tearing pain in right chest.

Croup: cough, wheezing-whistling, metallic; with labored and stridulous breathing.

**Cough.** *Teasing, dry, hacking, with dryness in the* *throat;* causad by tickling in the throat pit; tickling in the stomach (Bry.); with a crawling sensation extending down beneath the sternum; constant tickling at entrance of larynx; in trachea and upper bronchia. Dry cough at night, awakening from sleep and not ceasing until he sits up in bed and passes flatus upward and downward. Belches before and after cough.

**Chest and Lungs.** *Burning and fulness in upper part of the chest,* as if too full of blood.

*Pain: sharp, piercing, midway between sternum and r. nipple; in r. chest through to shoulder,* can only place hand on top of head with great difficulty (Chel., Kali b.); sharp stitches from lower part of l. breast through to scapula. Burning, cramping, stitching pains in chest.

Tenderness in l. chest under third rib, with soreness, burning and smarting, worse when coughing.

"Desire to take a deep breath, followed by intense pain in right side of chest, with morning lassitude."—*C C. Smith.*

"With the cough: choking; beating and a feeling of tightness in the head; spasmodic hiccough before and after coughing. After the cough heat continues some time; after the heat, yawning and stretching."—*Bute.*

**Expectoration.** Hæmoptysis, during phthisis; blood bright-red, clotted, offensive. Breath and sputa very fetid, offensive even to the patient.

Sputa: of thick mucus; tough, rust colored; difficult; offensive, purulent.

**Relations.** Complementary to *Sepia.*

## SEPIA.

**Characteristic.** Best suited to persons of dark hair, rigid muscles.

Particularly sensitive to cold air, "chills so easily" (Cal., Kali c., Phos.); lack of vital heat especially in chronic diseases (in acute diseases, Led.); disposition to take cold from dry, cold winds, getting the head wet, or "sopping" the hair to brush it.

"The washerwoman's remedy;" complaints that are brought on or aggravated by laundry work.

Pains: extend from other parts to the back; cramping or drawing in inner parts; excessive sensitiveness to pain; with shuddering (with chilliness, Puls.).

Sensation: *of a ball in inner parts;* as if parts would burst; *of emptiness or hollowness* (in epigastrium), especially when accompanied by fainting; throbbing, pulsating in internal organs.

Mental: paroxysms of oppressive anxiety; of involuntary laughing and weeping; of peevish ill-humor, solicitude about health or domestic affairs; ailments aggravated by anger or vexation; angry irritability and cool indifference to one's family, to those one loves best (Fl. ac.); antagonistic alternation of mental conditions; greedy, miserly (Lyc.).

Indolent: does not want to do anything, either work or play, even an exertion to think.

Coldness on the vertex, worse when moving head and stooping; better at rest and in open air, (Verat.—heat of vertex, Cal., Graph., Sulph.).

Herpes circinnatus in isolated spots on upper part of body (in clusters or intersecting rings over whole body, Tell.).

Face: yellowness of; yellow spots on face; around the mouth; yellow saddle across upper part of cheeks and nose (Curare, Lyc., Sulph.); pale and sallow with pimples especially on forehead and nose.

Tongue: very foul, but becomes clean at each menstrual flow, returning again when flow ceases.

"Pressure in the throat, no matter how little it is covered; all the coverings of the neck feel too tight and are being constantly loosened."—*Lippe.*

*Sudden prostration and sinking faintness.*

Climacteric affections in women of mild, easy disposition (Puls.).

**Aggravation** In afternoon and evening; when at rest; sexual excesses; lying on left side; from the use of acids; in sultry, moist weather; before a thunder storm; dry east wind.

**Amelioration.** Warmth; hot applications; violent exercise; pressing with hand relieves chest.

**Larynx and Trachea.** Roughness and soreness of throat and larynx.

Hoarseness: cannot speak a loud word; with fluent coryza; with dry cough, from tickling in the throat; dryness of larynx and trachea.

**Respiration.** Severe oppression towards evening.

Breathing: short, when walking, as if the chest were full; loss of breath, by every motion, even the slightest; difficult, with mucus in chest. Awakes in the morning with great dyspnœa, and covered with sweat, lasting for hours.

**Cough.** *Short, dry, which seems to come from the stomach.*

*Short, hacking cough in the evening after lying down; cannot sleep at night on account of incessant cough.*

Cough with sneezing and coryza, begins every morning before getting out of bed, and until 9 A. M.

Cough dry, at night until midnight, frequently with nausea and bitter vomiting; coughs till breath is gone, then gags and vomits; in evening, not ceasing until cough loosens so as to expectorate a little phlegm; during sleep, without waking; daytime without, morning with expectoration; toward morning, from tickling in larynx or bronchi; constant when child is laid down.

The irritation to cough often comes on so suddenly and violently that he cannot breathe quick enough, can scarcely inhale at all.

Child coughs till breath is gone, then gags and vomits mucus.

*Coughs phlegm loose, cannot get it up.*

**Expectoration.** Profuse, tastes salty in the morning; blood-streaked, after dinner; of pure blood while lying down; green, gray, purulent, *offensive* or EXCESSIVELY FETID; the breath and taste are occasionally fetid or putrid (Psor., Sang.).

Expectoration *free in the morning*, or *free at night*, but not in daytime.

**Chest and Lungs.** Sensation of soreness in middle of chest; of emptiness in chest.

Stitch in lower chest and scapula, when breathing or coughing.

Stitching, darting pains through central portion of right lung.

Congestion of blood to chest.

**Relations.** Follows well after: *Con.*, *Lyc.*, *Puls.*, *Sil.*, *Sulph.*

Sepia antidotes the mental effects of excessive use of tobacco, especially in those suffering from over mental work.

## SILICEA.

Like Calcarea and Lycopodium, in its crude state Silicea is both insoluble and inert; yet, when potentized, it becomes a powerful antipsoric and one of the most useful and most frequently indicated remedies in the Materia Medica, a monument to the genius of Hahnemann and the efficacy of potentization. As in Calcarea, so in Silicea, the constitutional indications for its use are more frequently met with during the years from infancy to adolescence than during adult life or old age. This is due to the fact that at this period the changes in nutrition are most important, and Silicea is especially adapted to those who suffer from imperfect nourishment; not from defects in quality or quantity of food, but from defective assimilation. Hence we have the disproportionately large head; the open fontanelles, especially the anterior; the lean, emaciated body; the weak ankles; the abdomen, hot and swollen; the profuse, sour, offensive sweat of head, neck and face; and the pale, waxen, cachectic, earthy-yellow complexion of the Silicea patient. The child is slow in learning to walk from weak, impoverished muscles and illy developed bones, a condition often the precursor of a true rachitis. When such a history of childhood's ills is found in the anamnesis of a patient, we can confidently rely on Silicea in the treatment of nearly every chronic affection occurring in adult life. Like Calcarea the general constitutional symptoms are guiding.

**Characteristic.** Especially adapted to persons of a scrofulous or rachitic diathesis; weak, anæmic, chlorotic; hereditary rheumatism.

For the diseases of childhood or adolescence; large heads, fontanelles and sutures open; light complexion, pale face, delicate dry skin, soft, flabby muscles; obstinate, headstrong, cry when kindly spoken to (Iod.).

For persons of nervous, irritable, sanguine temperament; deficient in vital heat even when taking active exercise (Sep.).

Diseases: caused by suppressed foot-sweat; exposing the head or back to a slight draught of air (Hep.); the bad effects of vaccination (Malan., Thuja); chest complaints of stone-cutters, with total loss of strength (Cal.).

Has a wonderful control over the process of suppuration whether the cellular or muscular tissues, the lymphatic or glandular system, bone or periosteum; aborting or maturing an abscess or felon, or reducing a profuse suppuration, as the symptoms indicate.

Chronic sick headache, since some severe disease of youth; pain rises from nape of neck to vertex, as if coming from the spine, locating in one eye, usually the right, relieved by pressure and wrapping up warmly (compare Sang., Spig.).

Constipation: during menses; stool hard, difficult, with great straining as if the rectum was paralyzed; stool that has been partly expelled recedes again.

Great aversion to warm, cooked food, especially to meat.

In nervous exhaustion, patient dreads any exertion, mental or physical; but "when once warmed up to his work can get along pretty well."

**Aggravation.** Cold; *cold drinks*; uncovering, especially the head; motion; speaking; *lying down;* during menses; during new moon.

**Amelioration.** Warmth, especially wrapping up the head; heat relieves all symptoms, except the gastric (compare, Lyc.); *hot drinks and food relieve cough.*

**Larynx and Trachea.** Hoarseness; with rawness, roughness and soreness in larynx; when breathing; when talking; *worse mornings*; with tickling in the larynx and frequent, dry, tickling cough; constant pain in larynx when lifting a heavy weight.

**Respiration.** Oppressed, unable to take a long breath, frequent deep sighing.

Breathing arrested: when coughing, lifting, running, after running, *lying on the back.*

Asthma: with spasmodic cough; spasm of larynx; pulsations in chest; with profuse purulent sputa; worse *when lying down* (Ars.).

**Cough.** Deep, exhausting; frequent, dry, hacking, causing soreness in chest; from tickling in throat-pit; awakening at night; with hoarseness; with rawness in larynx and chest; hoarse, hollow, spasmodic; in morning with vomiting of tenacious mucus; with scanty mucus or profuse purulent sputa; worse after waking in morning and evening on lying down.

Sensation of a hair lying from tip of tongue to trachea, compelling a constant hacking, scraping, coughing.

**Expectoration.** Copious, green, fetid, purulent; acrid, viscid, milky, frothy; of an offensive, greasy taste; dense, muco-purulent, of pus globules, of a musty, fetid odor; makes the water turbid, and that which sinks has an offensive odor.

The hectic of Silicea is attended with *general heat* or heat returning periodically during the day, and has *great thirst in afternoon, evening and sometimes all night.* The sweats are worse after midnight and from least exertion; profuse, sour or musty, debilitating and of an offensive cadaverous odor. Offensive foot sweat.

**Relations.** Complementary: *Thuja.*

Silicea follows well after: *Bell., Bry., Cal., Graph., Hep., Nit. ac., Phos.*

After Silicea: *Fluor. ac., Hep., Lach., Lyc., Sep., Sulph.* Gettysburg is similar in diseases of bones, especially of vertebræ and hip joint.

The higher potencies give best and most lasting curative results.

After improvement has set in it is never advisable to repeat the dose in any potency as long as the patient continues to improve. The disregarding of this rule so strongly insisted upon by Hahnemann has spoiled many a promising cure.

## SPONGIA.

**Characteristic.** Adapted to persons of a tubercular diathesis, light hair, fair complexion, skin and muscles lax and flabby; women and children with a history of croup and enlargement and induration of glands (Brom.—dark hair and skin with croup and glandular enlargements, Iod.).

Great heaviness of the whole body, while walking was obliged to sit down upon the ground.

Extreme exhaustion of body and mind.

Clothing feels uncomfortable; oppresses and annoys the wearer.

Affections beginning in right side of sexual organs; ovary, testicle, spermatic cord.

**Aggravation.** From ascending; going up stairs, up a hill, rising from a chair; dry, cold winds, especially the west wind (Acon., Bry., Hep.); cold drinks; smoking tobacco; sweets; lying with head low; warm room; every excitement.

**Amelioration.** On descending; from rest in a horizontal position; eating or drinking warm things (Sil.).

**Larynx and Trachea.** Hoarseness: voice cracked or faint; increasing, can only speak with difficulty; very hollow voice, gives out when singing or talking (voice breaks on the higher notes, Arum.); larynx, sensitive to touch (Apis., Lach.), and when turning the head.

Sensation of a plug in the larynx; of stoppage in the trachea; of contraction of larynx.

Talking hurts the larynx, so painful, must cease.

Burning, scraping, constriction in larynx.

**Respiration.** Dry, sawing, whistling; loud, wheezing, anxious, worse on inspiration, with violent laboring of the abdominal muscles; difficult, as if a plug were sticking in the larynx and the breath could not get through on account of the constriction.

Dyspnœa: most severe on lying down; relieved by bending body forward; *with sudden weakness, blood seemed to rush into chest as if it would burst; as if breathing through a dry sponge.*

"After every motion of the body, even slight, great weakness, with orgasm of blood in the chest, the vessels were hard and distended, the face became hot, the body began to glow and her breath left her; only after resting a long time did she recover."

*Great exhaustion after every exertion, especially of the chest, could scarcely talk.*

Awakens with suffocative sensation (Lach.).

Attacks of mucous rattling in trachea; at times so severe as to cause strangling; starts from sleep suddenly to get breath.

Asthma: after menses (Nat. s.); from taking cold, cannot lie down; sibilant ronchi.

**Cough.** Dry, day and night; barking, hollow, croupy; asthmatic, wheezing, whistling; incessant, *from irritation at a place low down in the chest where from coughing it pains as if sore and bloody;* from burning, tickling in larynx like a valve or plug; with burning in chest as from something hot; by sensation of accumulation of mucus in the chest.

**Chest and Lungs.** Pain, constricting, spasmodic, in the chest and bronchi; with rawness in the throat when coughing. Congestion in chest from least motion or exertion, with dyspnœa, nausea, fainting and great weakness. Burning, soreness, rawness, heaviness in chest, stitches in both sides of the chest.

Tubercular deposit begins in apex of left lung (Cal., Phos., Sulph., Tub.).

**Expectoration.** Scanty, hard lumps, tenacious, yellow, a little sour; loosened mornings, but must be swallowed again (Arn., Caust., Dros., Iod., Zinc.); profuse mucus, cannot lie down; violent attacks of cough, chronic, brought up small hard tubercle.

**Relations.** Spongia follows well after: *Acon., Hep., Sulph.*

Is followed by: *Brom., Hep.*

In nearly all affections of the chest involving the larynx, trachea, bronchi—*where everything is perfectly dry and tight,* no looseness, no rattling in breathing, cough, asthma, or croup, is the special sphere of Spongia.

## STANNUM.

The mental characteristic of the consumptive, one more generally met with than any other, is the wonderful buoyant hopefulness by which he is sustained through a tedious illness, and which does not forsake him even in the closing hours of life. Every downward step, every aggravation, is attributed to something else. He or she is always "improving." Yet Stannum has gained its chief reputation in the treatment of affections of the respiratory organs, especially catarrhal and scrofulous consumption, in which it has made many cures, and its mental characteristic is a sad and lachrymose condition, very like Pulsatilla. This low-spirited condition is rarely met with in true tubercular phthisis, yet when found should always call our attention to Stannum.

**Characteristic.** Low-spirited, sad, feels like crying all the time, but crying makes her worse (compare Nat. m., Puls., Sep.).

Listless, nervous, weak; cannot muster sufficient courage to do anything; simply giving directions in household affairs causes anxiety and palpitation; is faint and weak, especially when going down stairs, can go up well enough (Bor.— reverse of Cal.).

Prolapsus uteri et vaginæ, *worse during stool* (prolapsus uteri with diarrhœa, Pod.); so weak *drops* into a chair instead of sitting down; while dressing in the morning has to sit down several times to rest; trembling of the arms and legs, they feel as heavy as lead.

Nausea and vomiting; in the morning; from the odor of cooking food (Colch.).

Sinking, empty, "gone" sensation in the epigastrium.

*Extreme exhaustion of mind and body.*

**Aggravation.** Laughing, singing, talking, *using the voice*, lying on right side, drinking anything warm (cold drinks, Spong.).

**Amelioration.** Coughing or hawking up mucus relieves hoarsenesss momentarily.

**Larynx and Trachea.** Voice: deep, husky, hollow; rough, hoarse; relieved for a time by coughing or hawking mucus.

Hoarseness, weekness, emptiness in the chest, on beginning to speak or sing, was constantly compelled to stop and take a deep breath; a few expulsive coughs relieved for a moment.

"*Using the voice* produces weakness in the arms between the elbow and shoulder, then the weakness gradually extends over the whole body."—*Guernsey.*

Talking, reading aloud, singing, public speaking, causes a weak, exhausted, empty, "given out" sensation and produces hoarseness.

Laryngeal phthisis, with constant short, irritating, hacking cough and aphonia; empty feeling in the chest.

**Respiration.** *Short, difficult breathing, caused by weakness of the respiratory organs, with great emptiness of the chest, though without dyspnœa.*

Dyspnœa: on ascending steps; on the slightest motion; as if the clothes were too tight, was obliged to open them in order to breathe as usual; in paroxysms, with anxiety; *in the evening; when lying down.*

Breathing: oppressed, crowing, snorting. Disposition to take a deep breath; causing a feeling of lightness.

Asthma: 4 to 5 A. M., preceded by symptoms of a common cold; attacks gradually increasing and decreasing in severity.

**Cough.** *Deep, hollow, violent, shattering, strangling; concussive, in paroxysms of three coughs* (in two paroxysms, Mer.); dry, while in bed in evening; from stitches and dryness in trachea; by mucus in chest; fatiguing paroxysms, so that the epigastric region was painful as if beaten.

Short cough, as from weakness of the chest.

*Scraping cough, provoked by irritation low down in the trachea, with greenish expectoration of an offensive, sweetish taste; worse evening before lying down; a hoarse voice, and a sore sensation in the trachea and chest after every cough; great weakness of voice and chest.*

Frightful cough with expectoration and spitting of blood.

**Expectoration.** Thick, viscid, grayish, gray-green, blood-streaked mucus, adheres to the throat, is detached with great difficulty, and the efforts to raise it excite an almost resistless inclination to vomit.

Extreme rawness and dryness of throat, without thirst; more painful during deglutition; thick grayish or greenish mucus adheres to the throat; strong efforts are required to raise, which excite inclination to vomit.

Sputa, abundant; copious, most profuse in the morning; like the white of an egg; glairy, streaked with yellow; of gray or yellow-green pus; sweetish, salty, sour, putrid; copious, green during the day; yellow, of a foul taste, from the trachea; of a globular, grayish lump of thick mucus, containing a clot of black blood and appearing to come from the throat.

Copious accumulation of mucus in the trachea easily thrown off by coughing; afterwards soreness or stitches in chest.

Hæmoptysis, with tendency to copious expectoration.

**Chest and Lungs.** *Great weakness* in the chest; *so weak he cannot talk. Empty* feeling in the chest.

*Sore pain in the whole chest.*

Knife-like stitches in left side of chest, when breathing or lying on that side; below left axilla.

Tension across upper part of chest. Sudden drawing beneath left breast on rising up in bed, followed by sharp knife-like stitches extending to the clavicle and shoulder where it remains fixed; pain occurs in shocks or jerks.

Hectic; *chill at 10 a. m.,* with numbness of finger tips; *or in the evening over the back;* heat from 4 to 5 P. M.;

sweat, *profuse on the back, debilitating, night and morning*, from least movement; *of a musty, mouldy odor* (Sil.).

**Relations.** Complementary: *Pulsatilla.*

Stannum follows well after: *Caust.*

Is followed by: *Phos., Sil., Sulph.*

## SULPHUR.

There is perhaps no remedy in the Materia Medica that has more triumphs to record in the cure of the tubercular affections than this king of chronic diseases. And, like all the antipsorics, the guiding symptoms for the selection of Sulphur, are to be found in the characteristics—the constitutional symptoms—rarely in the localized phenomena of the diseased condition. It is the hot flushes; the empty, gone hungry sensation at stomach at 11 A. M.; the hot vertex; the cold feet, with burning soles at night; the morning diarrhœa, sudden and imperative; the history of psora and repelled eruptions, etc., etc., rather than the pathology of the case, which will lead to the true indication.

Sulphur may be said to be the central remedy of our Materia Medica. It has well-defined relations with every drug we use. The great utility of Sulphur, arises from this peculiarity; it is our mainstay in defective reaction. When the system refuses to respond to the well-selected remedy, it matters not what the disease may be, whether it corresponds characteristically with the symptomatology of Sulphur or not, it will often be the remedy to clear up the case and bring about reaction, and either itself cure the case, or pave the way for another drug which will cure. This quality of Sulphur arises from its relation to what Hahnemann calls psora. Hahnemann taught what is practically true, that when a disease is suppressed (and a disease is suppressed when it is driven from the surface to the interior of the body) there is formed a constitution or dyscrasia which will afterwards modify every abnormality from which the patient may suffer. For instance, an eruption on the skin is dried up or is driven in by some external application. Afterwards (it may be ten years), another disease may appear, but not necessarily as a skin affection.

Pathologically, it may be entirely different from it. For instance, as the result of exposure to cold, the patient contracts pneumonia. This suppressed eruption so modifies the disease that it is incurable until that same eruption is re-established on the skin. Then you will be amazed to see how promptly the remedy that before refused to act, now cures the case. Many times has Sulphur restored such suppressed diseases, and in this fact lies its wide application in practice.—*Farrington.*

The discharges are acrid and burning; all excretions burn the parts over which they pass.

**Characteristic.** Especially adapted to persons of a light rather than dark complexion, of a psoric or scrofulous diathesis; persons subject to venous congestions, particularly of portal system. It is rarely indicated unless some derangement of the circulation be present.

Persons of nervous temperament, quick motioned, quick tempered; plethora, from sudden cessation of an accustomed discharge as a hæmorrhoidal flux; skin very sensitive to atmospheric changes and to eruptive diseases (Hep., Psor.), is harsh, rough, and readily takes on eruptions of almost every variety.

Suited for the lean, stoop-shouldered, who walk and sit stooped (Phos.). Standing is the most trying position for the Sulphur patient; can walk, but cannot stand; walks stooping like old men.

Offensive odor from the body, despite washing, producing disgust and nausea; averse to washing or bathing; the odor of the stool follows him around as if he had soiled himself (compare Psor., Sanicula).

Chronic diseases, the result of suppressed eruptions.

Children cannot bear to be bathed (in cold water, Ant. c.); emaciated, big-bellied; restless, hot, kick off the clothes at night (Hep.); have worms, but indicated remedy fails to relieve.

Complaints that are continually relapsing; patient seems to get almost well when symptoms return again and again.

Sick headache every week, or every other week, hot vertex and cold feet; exhausting, prostrating, weakening (Sang.).

Constant heat of vertex; cold feet with burning soles; must find a cool place for feet, puts them out of bed to cool them off; cramps in calves and soles.

Hot flushes during the day with weak, faint spells; sensations of heat in the affected part.

Weak, empty, "gone" or faint sensation in the stomach about 11 A. M.; hungry, cannot wait for dinner.

Diarrhœa: after midnight; sudden, imperative, painless, driving out of bed early in morning; as if the bowels were too weak to retain their contents.

*Nightly suffocating attacks; wants doors and windows open.*

Affections of the left side of the body.

*Talking fatigues and excites the pains.*

**Aggravation.** At rest; while standing; warmth of bed; washing, bathing; changeable weather; after midnight; on stretching the affected limb.

**Amelioration.** Heat; dry, warm weather; drawing up the limbs; lying on the right side.

**Larynx and Trachea.** *Hoarseness in the morning.*

Voice: rough, deep, hoarse; complete aphonia with mucus in trachea and bronchi.

Drawing, dryness and tickling in the larynx, and burning when swallowing.

**Respiration.** Shortness of breath: from talking; when walking in the open air; on bending arms backward; towards evening.

Arrest of breathing: on falling asleep, her breath left her, threatened to suffocate, started up with a loud scream.

Paroxysms of suffocation, painless, at night in sleep; gasping for breath, on account of constriction of larynx; the throat appeared to be too narrow, the face, hot and turgid; veins of forehead and temple distended.

Dyspnœa; evening in bed; on walking fast; with severe constriction of chest; followed by yawning; with visible palpitation.

*Rattling in chest, worse after expectoration.*

**Cough.** *Dry, caused by rawness in the larynx;* awakens from sleep at night; dry, a long time in the evening in bed, before falling asleep; dry, choking, with hoarseness and watery saliva; short, dry, violent, with stitches in chest or under left scapula; with mucus rattling in chest; loose, with soreness and pressure in chest; *hoarseness and rattling in trachea;* excited by talking; spasmodic, two paroxysms in rapid succession (Mer.)

Cough; excited by tickling in the larynx as if caused by "down;" evening and night without, morning and day with expectoration of dark blood, or yellow, greenish, purulent mucus.

Headache, as if bruised or torn, when coughing.

**Chest and Lungs.** Great weakness of the chest, when talking, or reading aloud (Stan.), in the evening while lying down.

Congestion of blood to the chest; burning in chest rising to face.

Stitching, shooting in left chest, through to l. scapula, worse lying on the back, when moving the arm, from the least motion.

Chest walls sensitive; sore spots in the chest, especially over apex of left lung; soreness in upper part of left lung going through to scapula.

A stitch extending from right side of chest into the scapula.

Pain: in scapula and intercostal spaces when coughing; from overlifting; after pneumonia; as if the chest would fly to pieces (Bry., Phos.); contractive, bandlike, around the chest; as if pressed or screwed together (Cac.).

Sensation of coldness in the chest; as if a lump of ice were in the right chest.

**Expectoration.** Of thin, watery, milky-white mucus mixed with pus globules; copious, thick yellow, globular mucus; greenish lumps or plugs of a sweetish taste; pieces of hard mucus, like starch, by hawking; of dark blood with a fatty sweetish taste; purulent, pus-like, putrid, offensive taste and odor (Psor., Sang., Sep.); like the discharge of an old catarrh.

**Relations.** Complementary: *Aloe.*

"Sulphur, *Cal.* and *Lyc.;* or Sulphur, *Sars.* and *Sep.*, frequently follow in the order given."—*Hering.*

Sulphur is the chronic of *Acon.*, and follows it well in all affections of the air passages, after the febrile storm has passed and localization taken place.

Similar to: *Myr.*, *Nat. m.*, *Nit. ac.*, *Phos.*, for stitches in upper left chest, especially in incipient tuberculosis.

Sulphur is followed by: nearly every remedy in the Materia Medica, and especially by nearly every antipsoric, in some stage of the tubercular process.

Sulphur frequently excites the reactive powers of the organism, the vital force, when carefully selected remedies fail to act or permanently improve, especially in acute disease (in chronic disease, Psor.— want of susceptibility to medicinal action, Carbo v.).

Sulphur which had not been carried up to very high degrees of potentization, has never cured the itch with which the workers in wool are frequently affected. This itch is cured the more safely and rapidly, the higher the potency used.

I now prepare Sulphur same as all other dry substances, by trituration. The tincture of Sulphur, prepared by alcohol, only contains some of the curative principles, but not all its ingredients. —*Hahnemann.*

In consumption everything depends upon the potency; the lower potencies are pernicious. I once provoked fatal activity of the secreting vessels in a pulmonary consumption with a third potency, so that my patient was absolutely drowned. The too frequent repetition and too low potencies of Sulphur in pulmonary phthisis are dangerous.—*Brigham.*

With single doses of Sulphur 55m. I have cured numerous cases of incipient phthisis.—*Fincke.*

The following generalization is so complete that we cannot resist the temptation to incorporate it:

> If pneumonia be not complicated with other diseases, then generally there comes a period when the febrile storm subsides, the pains, dyspnœa, etc., cease — in short, the patient feels himself greatly relieved as soon as the infiltration becomes complete. At this period art can have no other problem than to support nature, while she, for the sake of removing the exudation increases the activity of the processes of absorption; or on the other hand to oppose nature in case she shows a disposition to get rid of the pneumonic infiltration by a purulent degeneration. Now, in our view, no remedy yet proved corresponds so well to these indications as Sulphur; none compares with it in point of certainty and celerity of action. Sulphur penetrates the entire organism, even in its finest and most recondite portions. It increases the activity of vegetative life generally, and the processes of secretion and absorption in particular; it accelerates the interchange of elements and makes it more pervading; in a word, it fulfills all the demands upon which the removal of an abnormal product is conditional. Upon these grounds we apply Sulphur to the removal of pneumonic infiltration and of serous exudations of old as well as recent deposits in the skin, the parenchyma, the joints and bones.—*Wurmb.*

Every true follower of Hahnemann knows that Sulphur is one of our most effective remedies, when properly administered, for dispersing the infiltrations of pneumonia; and we have too much evidence to doubt that it is equally potent in removing tubercular exudations. While there may be a great difference in the pathological products of pneumonia and tuberculosis, yet they are each the result of inflammatory action modified by the constitutional peculiarity of the patient. And, moreover, tuberculosis frequently supervenes upon pneumonia, and pneumonia often occurs during the progress of tuberculosis; while frequent attacks of pneumonia almost invariably terminate in tuberculosis. With these facts before us the true Homœopath will carefully follow the teachings of the master, select his remedy from the totality of the case and pay little attention to a diagnosis or prognosis based on a treatment entirely different, and the generalization of Wurmb may be eventually applied to phthisis.

I would caution you as to how you use this drug. If carelessly or wrongly given, it may precipitate the disease which it was your desire to cure. You must not repeat your doses too frequently; and you must never give it unless you are certain it is *the* remedy, for the tendency of Sulphur is to arouse whatever lies dormant in the system.—*Farrington.*

And again:

Be careful how you give Sulphur if tuberculosis has been developed by pneumonia. To do so is almost like giving a person running down hill another push. It will only hasten the end.—*Farrington.*

Chronic conditions which are the result of pneumonia, where the patient had before been troubled with a chest complaint, in which we find slow resolution, lingering cough with expectoration, emaciation, night sweats (not tuberculosis), yet with a cachectic state ultimately ending in phthisis, be extremely careful how you give Sulphur, and especially how you repeat it, or you may cause a fatal aggravation.—*Kent.*

# MINOR REMEDIES.

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## ALUMEN.

**Characteristic.** Bronchial catarrhs in children and old people (Alum.). Very sensitive to cold; exposure to cold chaps and roughens the skin. Attacks: of cramps, flushes, nausea, palpitation, appear and disappear suddenly. Emaciation. Hæmorrhage; atonic from stomach, bowels, bronchi, lungs, after extraction of teeth; blood light, non-coagulable (Nit. ac.). Long-lasting rectal pain each after stool (Nit. ac.). Bronchitis, degenerating into phthisis.

*Larynx and Trachea.* Aphonia: voice hoarse, shrill, varying in tone, worse from talking.

Roughness, scraping, scratching in larynx as if from dust; much clear albuminous mucus is brought up.

*Cough.* From tickling in the larynx; caused by talking; morning, immediately after rising; worse during, better after breakfast (Kali c.); dry in the evening after lying down.

*Chest and Lungs.* Pain; from upper chest through to back; under clavicles and right shoulder when inhaling.

*Expectoration.* Profuse, ropy, clear, albuminous: salty, bloody.

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## APIS.

**Characteristic.** For the strumous diathesis; persons of bilious, nervous temperament; women, especially widows; children and girls who though generally careful become awkward and let things fall while handling them (Bov.—worse during menses, Nat. m.).

Lachrymose; cannot help crying; discouraged; despondent.

Bag-like swelling under the eyes (over the eyes, Kali c.).

Incontinence of urine, with great irritation of parts; can scarcely retain the urine a moment, and when passed scalds severely.

Great sensitiveness to touch (Bell., Lach.).

Nervous trembling, great prostration, restlessness; *tired, always wishing they could get rested.*

*Aggravation.* After sleeping (Lach.); closed, warm rooms are intolerable; getting wet (Rhus).

*Amelioration.* Open air; cold bathing; uncovering.

*Larynx and Trachea.* Hoarseness mornings, dryness and burning of throat and larynx, but no thirst.

Œdema of glottis, larynx and trachea; every drop of liquid put upon the tongue nearly suffocates him.

*Respiration.* Breathing; oppressed, rapid, painful, spasmodic; worse lying down and in a warm room, better in open air.

*Cough.* From irritation in supra-sternal fossa; constrictive feeling in throat; pressure on sternum.

Cough; dry, ringing, spasmodic; morning and evening; obstinate at night (from 9 P. M. to 4 A. M.); dry, with gagging; ceases as soon as the least sputa is loosened; with concussion in head.

*Chest and Lungs.* Sensation of coldness or heat in chest.

Dull, aching pain in left chest, near middle of sternum; fullness, constriction or suffocation in chest; sharp stitches in left chest; soreness in chest.

*Expectoration. Scanty,* or none at all; or more rarely profuse, transparent, albuminous, or frothy, bloody mucus.

*Relations.* Complementary: *Natrum mur.*

Inimical: *Rhus;* does not follow well after the animal poisons.

Apis appears to be adapted to incipient phthisis attended with or followed by profuse albuminous exudation, or even albuminuria. The patient is pale, sickly, sallow; face red or hot and swollen; burning cheeks with cold feet; of a decided cachectic habit, in whom after the pulmonary affection has been modified or arrested sooner or later develop albuminuria.

## ARANEA.

**Characteristic.** Hydrogenoid constitution. Especially adapted to persons, who, from privations and exposure, have become anæmic, dyspeptic, impoverished, scorbutic; persons whose complaints are aggravated by living in damp places — in basements, near or on the water, working in cellars, etc.— extremely sensitive to cold, worse in cold, damp weather and from bathing (compare Nat. s.).

*Chest and Lungs.* Oppression of chest, nausea, gaping yawning, with convulsive pains in stomach after eating.

*Expectoration.* Cough, with bloody sputa. Hæmorrhagic diathesis; violent hæmorrhages; from the lungs; from all the orifices of the body (Ipec., Nit. ac., Phos.).

## ARNICA.

**Characteristic.** Hydrogenoid constitution. Plethoric; red face; dark hair; rigid muscles. Best suited for those who remain long impressed by even slight mechanical injuries (Rhus, Millef.).

Nervous, cannot endure pain; sore, bruised feeling all through the body, as if beaten; everything on which he lies seems too hard. Heat of upper part of body, coldness of lower; the face, or head and face alone, is hot, body cool.

Fears being touched by persons coming near him.

*Larynx and Trachea.* Hoarseness, of public speakers, ministers, officers, conductors, from over using the voice.

Raw, scraped sensation in trachea and bronchi.

*Cough.* Dry, short, hacking; day and night; from insupportable tickling in larynx and trachea; from itching irritation in upper part of trachea; severe, which shakes the whole frame.

*Chest and Lungs.* Chest sore, painful, as if bruised. When coughing, violent stitches in middle of left chest, worse from coughing, motion, from external pressure.

Chest affections the result of mechanical injuries.

*Expectoration.* Blood-streaked, green, offensive, purulent. Scanty, difficult; of transparent, glairy slime mixed with black dots or bloody; *when loosened must be swallowed* (Caust., Sep.).

Hæmorrhage after mechanical injuries; blood dark, thick, viscid, or frothy, bright red, mixed with mucus and coagula; darkish, semi-fluid, expelled with a hacking cough.

*Relations.* Complementary; *Aconite.*

Arnica follows: *Acon., Ipec., Millef., Verat.*

After it follow well: *Acon., Ars., Bry., Ipec., Rhus., Sulph., ac.*

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## CACTUS.

**Characteristic.** *Sensation of constriction:* of throat chest, heart, pelvic organs; as if an iron band prevented normal motion of the chest; often caused or brought on by the slightest contact.

Pains; darting, springing, like chain-lightning, and ending with a sharp, vice-like grip, only to be again renewed.

Whole body feels as if caged, each wire being twisted tighter and tighter.

Menstrual flow ceases when lying down (Caust., Lil.).

*Respiration.* Breathing: oppressed, when going up stairs; difficult, as if chest were constricted with an iron band; periodical attacks of suffocation.

*Cough.* Dry, spasmodic, from tickling in throat, itching in larynx (Iod.).

*Expectoration.* Copious; thick yellow; viscid; like boiled starch; yellow and jelly-like, bloody.

*Chest and Lungs.* Painful sensation of constriction in lower part of chest.

Pricking, pressing pains in upper part of chest (both sides) causing dyspnœa and deep breathing.

Hæmoptysis; blood light red; with marked arterial excitement (but lacking the fever and mental restlessness of Aconite); profuse and renewed every 4, 6, 7 or 8 hours, accompanied each time with convulsive cough; from cardiac complications (Dig., Led.).

## CORALLORRHIZA (Crawley).

This remedy deserves a thorough proving; what we know of its curative powers in controlling the hectic of wasting diseases being entirely clinical. Introduced by F. A. Waddell, M. D., Wauseon, Ohio.

Hectic fever coming on at 9 or 10 A. M. and lasting till midnight. Intense nervousness and restlessness; burning of the palms and soles; no chill, no thirst, no perspiration; can bear only the slightest covering while fever is on, even in winter; after midnight can be covered and sleeps well. This fever is promptly relieved without leaving any prostration after it.

## DIGITALIS.

**Characteristic.** For the irregularities of circulation occurring at climacteric; sudden flushes of heat, followed by great nervous weakness and irregular, intermitting pulse — every third, fifth or seventh beat intermits — or extremely slow when at rest; accelerated, full, hard by least motion.

Sensation as if heart would stop beating if she dared to move (fears her heart would cease beating if she ceased moving, Gels.).

One hand hot, the other cold (compare, Lyc.). Great weakness of chest, cannot bear to talk.

*Aggravation.* Warm room; midnight or toward morning; getting heated; cold drinks (Ars., Elaps.); talking, motion, lying down.

*Larynx and Trachea.* Morning hoarseness; voice hoarse or screeching, rarely failing.

*Respiration.* Irregular, chiefly of frequent deep sighs; slow, difficult, asthmatic; when she goes to sleep breath fades away and seems to be gone, then wakes up with a gasp to catch it.

Fear of suffocation at night, with desire for open air.

*Cough.* Deep, hollow, spasmodic, from roughness and scraping in trachea; worse from eating, drinking cold fluids, talking, or walking in open air, becoming heated, midnight or towards morning; great prostration after.

*Expectoration.* Cough, morning without, evening with scanty, yellow, jelly-like mucus, expectorated with difficulty; like boiled starch.

Hæmoptysis: before menses, with pain in chest, back, thighs; from obstruction of pulmonary circulation depending on weakened dilated heart with passive congestion; with engorged veins of head and neck, face pale, skin cold and covered with cold sweat, pulse irregular and intermittent; blood discs in the sputum.

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## ELAPS.

**Characteristic.** *Extremely sensitive to cold:* arms cold by putting hands in cold water; coldness, aggravated by drinking and in cold, wet weather; fruits and cold drinks lie like ice on the stomach.

Affects right lung most prominently.

*Larynx and Trachea.* Complete aphonia.

*Respiration.* Breathing oppressed in evening, worse going up stairs.

*Cough.* Dry, in constantly recurring paroxysms; violent in attacks, followed by expectoration of black blood, with severe tearing pains in whole chest and especially *at apex of right lung.* Constant cough, with frightful pains throughout lungs, as if they were torn out; with expectoration of masses of black blood.

Hæmoptysis: *taste of blood in mouth before* (Ham.); of black blood, often fluid; with sensation of laceration in region of heart (passive hæmorrhage of dark coagula or black blood, incipient phthisis, Erigeron).

## FERRUM PHOSPHORICUM.

*Larynx and Trachea.* Hoarseness from overstraining voice (Arn., Arum.).

Acute laryngitis and bronchitis, high fever, but no restlessness.

*Cough.* Dry, short, hacking, tormenting; acute, very painful; spasmodic every morning when dressing, *aggravated by going into open air* (Phos.); with involuntary urination (Caust., Puls.); when touching larynx, paroxysms, most at night or during day when asleep; with mucous râles in chest most marked at night.

Pleurisy, pneumonia, in the, hyperæmic or inflammatory stage; general febrile heat; full, round pulse; little or no fever; when congestion begins in the opposite lung; sputa blood-streaked, caused by least exertion or by exposure to cold air.

*Chest and Lungs.* Hæmoptysis: *profuse, blood bright red,* (Mel.); coming up with slight effort, or by slight hawking; provoked by a dry, tickling, hacking cough and aggravated from least exertion; with or without cough;

after disturbed menses, mechanical injuries or former bleedings have weakened the lungs; with a dry cough in phthisis.

Hæmorrhage, bright red; preceded by a sense of bubbling in chest, and accompanied by nausea, chills, heavy, oppressed breathing, livid face, small, frequent pulse, anxiety and debility, can scarcely speak; protracted taste of blood in the mouth (Elaps, Ham.).

*Expectoration.* Hæmoptysis: blood, bright red, frothy (Acon., Mel.).

Traumatic hæmorrhage (Arnica — dark, black blood, Ham.).

Sputa: frothy, of pink mucus, blood-streaked; coughs up clear blood. Epistaxis; at same time, or following and relieving headache (Mel.). Phthisis florida (Led., Puls.).

## HAMAMELIS.

**Characteristic.** Takes cold easily from every exposure but especially to warm, moist air (Euph., Ipec.).

*Chest and Lungs.* Hæmoptysis: active or passive; blood dark, venous, raised with little effort without coughing; with dull frontal headache; tickling cough with taste of blood (Elaps) or of Sulphur in the mouth; cannot lie down, because of dyspnœa from congestion; mind calm› Severe stitches in lower part of lungs.

## HELIX TOSTA.

Two cases of pronounced incipient phthisis, one developed the attendant symptoms during the puerperal state, are reported by W. H. Leonard, M. D., of Minneapolis. In the latter case several well indicated remedies were used to tide her over the impending crisis, but with unsatisfactory results.

"The constant dry cough, difficult, scanty expectoration, constantly failing strength, night sweats in first sleep were ominous, when hæmoptysis set in, which seriously complicated the case both mentally and physically. I at once decided to give Helix tosta cm. with almost magical results. The hæmorrhage ceased, cough improved, expectoration decreased, and for eight months has been doing well."

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## IPECACUANHA.

**Characteristic.** Oversensitive to either heat or cold; worse in warm, moist, south winds. Hæmorrhages; bright red, from all the orifices of the body; after mechanical injuries, (Arn., Fer. p., Millef., Rhus).

Nausea; distressing; constant with nearly all complaints; precedes hæmorrhage. Sensation as if stomach hung down relaxed (Staph.).

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## LEDUM.

**Characteristic.** Adapted to the gouty, rheumatic diathesis; to constitutions suffering from abuse of alcohol, colchicum, and from exposure.

Complaints of persons — especially, if pale and delicate — who always feel cold and chilly; the symptoms are generally attended with coldness and lack of vital heat.

Red blotches, tubercles or eruption of pimples on face as in brandy drinkers.

*Aggravation. Heat;* warmth of bed becomes intolerable on account of burning of limbs, must throw off the bed clothes (rev. of Sil.).

*Amelioration. Cold:* cold air, cold water, sitting with hands or feet in ice-water.

*Larynx and Trachea.* Tickling in larynx and trachea, with hæmoptysis.

*Respiration.* Breathing: oppressed, rapid, painful. Spasmodic, double inspiration, as after hard crying.

*Cough.* Hollow, racking, from tickling in larynx; loses breath before cough; spasmodic, a few days before an eruption of eczema or an attack of gout.

Mouldy taste in mouth every time she coughs, causing great nausea, loss of appetite and watery vomiting.

*Chest and Lungs.* Burning soreness or stitches in the chest, under sternum; constriction when walking or ascending.

Hæmoptysis: bright red, profuse, foamy, alternating with coxalgia or rheumatism; with violent paroxysmal cough caused by tickling in larynx or trachea; from cardiac troubles (Cac.), with rattling and hissing in air passages; *with burning pain in a fixed point in chest* from which blood seems to come (burning like fire in lungs, Bufones); *at midnight* and *in morning;* preceded or accompanied with *beating headache.*

*Symptoms of pulmonary phthisis alternate with rheumatism.*

*Expectoration.* Fetid, purulent, greenish; after midnight and in morning; suppuration of lungs or when neglected pneumonia degenerates into tuberculosis.

Phthisis florida (Fer. p., Puls.).

## MANGANUM.

*Larynx and Trachea.* Hoarseness; with coryza, or lasting a long time after an attack of coryza; with tickling cough; voice rough as from phlegm; rawness, roughness and constriction in larynx. Dull stitches on both sides of larynx, extending to ear when swallowing; eustachean deafness.

Tubercular laryngitis; dry cough, worse after speaking; expectoration of greenish masses or bloody mucus; profound anæmia.

*Cough.* Dry, constant, from irritation under mid sternum, worse from talking, laughing, walking, deep inspiration, with painful dryness, roughness and constriction; *always promptly relieved by lying down.*

*Expectoration.* Scanty, yellow, adhesive, coughs long before raising; of lumps of tough mucus; of greenish masses; reddish or bloody mucus.

Hæmoptysis: with stitching pains through r. lung and dry, incessant cough, always *ceasing when lying down.*

## MILLEFOLIUM.

**Characteristic.** Hæmorrhages of all kinds: chiefly from lungs and bowels; bright, florid; of mechanical origin, especially from a fall; of wounds which bleed profusely; passive, in atonic constitutions.

Effects of overlifting, over-exertion, or falling (Arn.).

*Cough.* With hæmoptysis of bright blood; with oppression of chest and palpitation; in suppressed hæmorrhoids; suppressed menses; incipient phthisis; profuse, without fever.

Coughing of blood; after a fall; after violent exertions; after an injury of lungs; worse at night. Warm blood bubbles up in chest and flows out of her mouth, then coughs with more bright red, bloody sputa.

## PINUS PALUSTRIS.

Has long been a popular remedy and has been used with success in chronic laryngitis and chronic bronchitis, which returns every autumn and spring.

*Cough.* Constant, short, hacking, tormenting; *in severe paroxysms;* sweats when he coughs; *dry, irritating,* as if he could not cough deep enough to dislodge the mucus (Caust.); worse at night, from talking, laughing, and becomes *unbearable on lying down*, must sleep in sitting position night after night, coughs as soon as he assumes a horizontal position. Very little expectoration.

## SILPHIUM.

This prairie plant first attracted the notice of the profession by the efficient service it rendered in the cure of asthma and the chronic loose coughs of horses. It has since been successfully used in humid asthma and in chronic catarrhal affections of the entire respiratory tract, characterized by profuse albuminous secretions. It has been found an invaluable palliative for the exhausting night sweats and profuse mucous discharges in the last stages of phthisis, when dangerous or even fatal aggravations may occur from the continued use of Acetic acid, Ferrum, Phosphorus, Stannum or Sulphur.

*Expectoration.* Profuse, glairy, watery, albuminous, like the white of an egg; tough, ropy mucus; stringy, tasteless mucus floating in the thin watery mass, which may be slightly purulent.

Mrs. M., aged 39, in the last stages of catarrhal phthisis; large cavities in both lungs; pulse, 120 to 140; hectic and night sweats. The most pronounced and troublesome symptom was a slight cough day and night, preventing sleep, with a constant, profuse expectoration of water mixed with light colored, stringy, tasteless mucus, containing a few pus globules. The amount raised in 24 hours was nearly three pints by measurement. Silphium 30 afforded marked and rapid relief. In less than a week the sputa had diminished to half a teacupful per diem. The appetite improved and there was a slight increase in flesh and strength. The disease, however, had made too great progress to be arrested, and patient died three months later.—*W. T. Laird.*

## STICTA PULMONARIA.

**Characteristic.** Dull, heavy pressure in forehead and root of nose. *Dry coryza; constant need to blow the nose, but no discharge results;* painful dryness of mucous membrane of nose; splitting frontal headache. Hands, especially palms, sweat profusely, unable to wear gloves.

*Cough.* Incessant, short, dry, hacking; from tickling in larynx and trachea; worse evening and night, can neither sleep nor lie down (see Pinus); severe, dry, caused by tickling in r. side of trachea, below larynx; loose morning, less free during day; incited by inspiration; severe, wearing, racking in consumptives; oppression of chest.

Sputa scanty, whitish, frothy; often absent.

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## TUBERCULINUM.

**Characteristic.** Adapted to persons of light complexion, blue eyes, blonde in preference to brunette; tall, slim, narrow chested; active and precocious mentally, weak physically; the tubercular diathesis (the psoric or scrofulous diathesis, Psor., Sulph.).

Symptoms ever changing; complaints affecting one organ, then another — the lungs, nervous system, brain, kidneys, stomach, skin—beginning suddenly, ceasing suddenly.

"Crops" of small, intensely painful boils, appear successively in the nose; discharge, green, fetid.

Takes cold easily, without knowing how or where.

When Psorinum, Sulphur, or the indicated remedy fails to relieve or permanently improve.

Emaciation, rapid and pronounced; loses flesh while eating well (Cal., Con., Iod.).

Tubercular deposit begins in apex of lungs, usually left.

*Cough.* Short, dry, hacking; worse mornings. Constant, racking, tubercular cough.

*Expectoration.* Sweet, yellow, green, purulent, fetid; profuse and rapidly prostrating. Profuse, debilitating night sweats.

Dr. A——, æt. 26, blonde, light hair and blue eyes, of a scrofulous habit; obstinate cough and failing health; was examined by Dr. Willard, of Allegheny, N. Y., and the physicians in town. Diagnosis: condensation from tubercular deposit in apex of left lung; depression at the third rib; was soon taken with pleuritic pains, followed by fever which ran into a hectic, with chills, night sweats and purulent expectoration. For months ran steadily down till considered hopeless by friends and her physician; was so feeble could not be moved. I sent her one dose of Tuberculinum about July 1st; soon after astonishing changes followed, with improvement in all the lung symptoms; fever and sweats almost entirely disappeared. A second dose was given August 12th; improvement continued and patient was able to be removed to New England, where she mended a little and then died.—*Brigham.*

# REPERTORY.

## CHARACTERISTIC.

ABDOMEN, large head and bloated, Cal.
  sunken, flabby, Cal. p.
ABSCESS, aborting or maturing an, Sil.
  suppuration, slow, Mer.
AFFECTIONATE, mild, gentle, timid, Puls.
AFFECTIONS, catarrhal, rheumatic or skin, persons subject to, Dul.
  go from r. to l., Lyc.
  left-sided, Lach., Sulph.
  psoric, Cal., Kreos.
  rheumatic, commence on right side, Lach.
  scrofulous, Hep., Psor., Sulph.
  syphilitic, mercurial, Lach.
AGED, with dark hair, lax fibre, inclined to obesity, for the, Kali c.
AILMENTS, anger, from, Lyc.
  climacteric, Dig., Lach., Sang., Sep.
  fright, from, Acon., Lyc., Op.
  from vexation with reserved displeasure, Lyc., Staph.
  gastric, from eating rich, fat food, cake, pastry, pork or sausage, Carbo v., Puls.
  mortification, Lyc.

[NOTE.—Instead of attempting to designate the comparative value of remedies by a difference of type, we have rather sought to give the finer shades of differentiation in the individual symptoms. This, we trust, will enable the Homœopathist to more carefully and thoroughly individualize each symptom in the selection of the simillimum.]

- AILMENTS, occurring at puberty, anæmia, chlorosis and other constitutional, Puls.
- AIR cold, great sensitiveness to, Cal., Hep., Sil., Psor.
  - aversion to cold, dry, open, Carbo an.
  - cold, sensitive to, chills so easily, Sep.
  - desire for fresh, Bap., Kali i., Puls.
  - exposing the head or back to a slight draught of, Sil.
  - extremely sensitive to open air, Hep., Psor.
  - longing for fresh, Cal., Kali i.
  - longing for cool open fresh, Puls.
  - seems to penetrate through and through, the least cold, Cal.
  - very sensitive to draughts of, Acon., Bell., Cal.
  - warm, moist, takes cold from exposure to, Ham., Euph., Ipec.
- ALCOHOL, from the abuse of, Led.
- ALCOHOLISM, patients who suffer from, in any form, Ars.
  - bad effects of, especially mental, Lach.
- ALONE, desires to be, Ign., Lyc., Nux.
  - dread of dying when, Ars.
  - dreads being, but avoids society, Con., Kali c., Lyc.
  - fear of being, Ars.
  - fears to be left, Ars., Bis., *Kali c.*, Lyc.
  - great aversion to being, Kali c.
- ANÆMIA and chlorosis, occurring at puberty, Puls.
- ANÆMIC, after loss of fluids or vitality, Kali c.
  - child or adult, adapted to the, Cal., p.
  - chlorotic, who suffer from catarrhal affections, Nat. m.
  - chlorotic, Phos., Sil.
  - profoundly, Mang.
- ANGER or vexation ailments by, Sep.
- ANGERS, least contradiction, Fer.
- ANGERED easily, then becomes vehement from which he afterwards suffers, Col., Phos., Nit., ac.
- ANGRY after getting, chilly or a red face and heat in the head, Bry.

- ANGRY ailments from, Bry., Col., Staph.
  - irritability to one's family, Sep.
- ANGUISH, full of, Ars.
- ANIMAL heat, lack of, Cal. p.
- ANKLES, weak, children trying to walk, Carbo an., Cal.p., Sil.
- ANNUALLY, complaints return, Ars.
- ANTAGONISTIC alternation of mental conditions, Sep.
- ANTHRAX, carbuncle, Ars., Kreos.
- ANXIETY, mental, paroxysms of oppressive, Sep.
  - and palpitation, simply giving directions in household affairs causes, Stan.
  - and mental distress, < in morning on waking, Lach.
  - and restlessness of mind and body, sighing and tossing about, Acon.
  - excessive, Ars.
  - sadness, great, worse in morning on waking, Lach.
  - with nervous excitability, Acon.
- ANXIOUS, peevish, hasty disposition, Bry.
  - and worried if he does not eat, gets, Iod.
  - apprehensive, Ars., Kreos.
- APHTHÆ, tongue cracked and bleeding, with, Bor.
  - cheek on the inside of, easily bleeding when eating or touched, Bor.
  - cheesy, with redness of mucous membrane, Bor., Sulph.
  - food, eating salty, sour or spiced food, Bor.
  - mouth hot, dryness and thirst with, Ars., Bor.
  - salivation, especially during dentition, with, Bor., Mer.
  - throat and larynx, extending to, Bor.
- APPETITE, no, Fer.
  - good, but a few mouthfuls fills up to the throat, Lyc.
  - will not return, Psor.
- ARMS cold, by putting hands in cold water, Elaps.
- ASTHMA, after mountain climbing, Ars.
  - humid with every change to damp, wet weather, Nat. s.
  - sailors suffering with "on shore," Brom.
- ASTHMATIC complaints of rapidly growing youth, Nat. s.

- Assimilation, defective, Cal.
- Atmospheric change brings an accession of coryza, cough or catarrhal fever, Myr.
  - changes, skin very sensitive to, Sulph.
  - changes, very sensitive to, Cal., Phos., Sang.
- Attack, always feels better just before a, severe, Psor.
  - attacks begin and cease suddenly, Alumen, Bell.
- Autumn and Spring, chronic bronchitis and laryngitis which returns every, Pinus.
- Aversion, beer to, Alum.
  - farinaceous food, Ars.
  - fatty things, Ars., Carbo v., Hep., Puls.
  - food, warm, cooked, especially meat, Lyc., Sil.
  - gruel, Ars.
  - meat to, which is tasteless, Alum.
  - to butter, Ars.
  - to meats, Arn., Ars., Kali b., Nit. ac., Sep., Sil.
  - to sweets, Ars., Caust., Mer., Nit. ac., Phos., Sulph.
- Awaken, hard to, Kreos.
- Awakens between 2 and 4 A. M., with nearly all complaints of throat and chest, Kali c.
- Awkward, let things fall while handling, children and girls become, Apis. Bor.
- Babies sick, will not sleep day or night, Psor.
- Bacon and ham, craving for, Cal. p.
- Bad part, inclined to take everything in, Ant. t., Caust., Cina, Iod., Sil.
- Bag-like swelling under eyes, Apis.
- Baldness, predisposed to premature, Kali c.
- Ball in inner parts, sensation of, Sep.
- Band were around the affected parts, as if a, Nit. ac.
- Basements, lung trouble from living in, Aran., Ars., Ars. i.
- Bathed, children cannot bear to be, Sulph.
- Bathing or washing, averse to, Sulph.
- Bed, dread of going to, Ars.
  - must be bolstered up in it, Ars. i.

- Better, near warm stove, and on lying down, Kali c.
- Bilious attacks, persons prone to so-called, Bry.
- Black hair, dark eyes, sensitive, delicate skin, children with, Caust.
- Bladder, paralysis of, Dul.
- Blasphemy, attacks of rage, with, Nit. ac.
- Blonde. in preference to brunette, Tub.
- Blood, irregular, unequal circulation of, in young of both sexes, Fer.
  - symptoms, of imperfect oxidation of, Carbo v.
- Blue cheeks, lips, and finger nails, Carbo an.
- Blueness of skin, Carbo v.
  - of skin of hands, hands and feet, distended veins show through the skin, Carbo an.
- Blushing, Fer.
- Body, affections of l. side of the, Sulph.
  - general coldness of, Cal. p.
  - upper part of wasted, lower part semi-dropsical, Lyc.
  - weak in, hopeless of recovery, Psor.
- Boils, "crops" of small, intensely painful, appear successively in the nose, Tub.
  - epidemic, of various sizes, Kali i.
  - often becoming carbuncular, Kali i.
  - small on face, neck, back, chest, suppurating and often leaving scars, Kali i.
  - surrounded by little pustules, Hep. Kali i.
- Bone diseases in childhood, persons who have suffered from, Phos.
  - pains, nocturnal, driving patient to despair. Kali i.
- Bones, as though a band were around the, Nit. ac.
  - non-union of, Cal. p.
  - to soften or bend or spine to curve, tendency of, Cal. p.
- Brain, over sensitive, Bell.
- Brandy drinkers, blotches and tubercles on face, as in, Led.
- Breasts, become enlarged, sore, painful at every menstrual effort, Con.

**Breath**, loss of on going up stairs and great weakness, Iod.

**Brilliant** intellectual development, young persons of, Bell.

mental faculties, but defective in physical development, Phos.

**Bronchitis**, acute degenerations following repeated attacks of, Ars. i.

degenerating into phthisis, Alumen.

persons who have frequent attacks of, Phos.

pneumonia or consumption, for the hectic of, Sang.

**Bruised**, body feels, with sensation of coldness, Phos.

"**Burn**, have never been well since that," Caust.

**Burning** pains predominate, Carbo v.

**Burst**, as if parts would, Sep.

**Business**, talks constantly about his, Bry.

**Cachectic** appearance, with a general, Bad.

condition, low, with debility and emaciation, Iod.

**Cachexia**, mal-treated ague and quinine, Nat. m.

**Caged**, whole body feels as if, each wire being twisted tighter and tighter, Cac.

**Calves** and soles, cramps in, Sulph.

**Carotids** throbbing, Bell., Mel.

**Carrion-like** odor, all excretions have a, Psor., Pyr.

**Catarrh** alternating with rheumatic pains, Kali b.

**Catarrhal** affections of respiratory and urinary tracts, of post-meridian life, frequent attacks of, Caust.

albuminous, like white of egg, Nat. m.

**Cauterization** with Arg. n., bad results of, Nat. m.

**Cellars**, underground places, working in, Aran., Ars. i., Ars.

**Censorious**, irascible, Caust.

displeased easily, Caust.

**Chagrin**, ailments from, Bry., Staph.

**Change** of life, women who have never recovered from, "have never felt well since that time," Lach.

- CHANGES, sudden atmospheric, persons who are easily affected by, Acon.
- CHANGING, symptoms ever, Kali b., Tub.
  - symptoms ever, no two attacks, no two chills, no two stools alike, Puls.
  - very well one hour, very miserable the next, Puls.
- CHEEKS, circumscribed redness of, in hectic, Sang.
  - red, Bell., Cal., Phos.
- CHEST, affects r. side of, Ars., Ars. i., Bad., Bap., Bell., Bor., Brom., Bry., Cal., Carbo an., Kali c., Lyc., Mer.
  - affects l. side of, most, Lach., Myr., Nat. m., Nat. s. Phos., Sulph., Tub.
  - complaints after mountain climbing, Ars.
  - lung, affects middle and lower portion of r., Bry.
  - pains run upwards, Brom.
  - stitching pains in r., Ars., Bell., Bor., Bry., Kali c.
  - weak, with overgrown boys, Iod.
- CHILD plays all day, restless, screaming all night, Psor.
  - cry, the least thing makes the, Caust.
- CHILDHOOD or adolescence for the diseases of, Sil.
- CHILDREN, youth and women, adapted to, Bell.
  - children, pale, delicate, sickly, Psor.
  - old looking, wrinkled, Kreos.
- CHILL every day at 11 A. M., Bap.
- CHILLINESS and coldness, ailments from anger, chagrin, mortification, violence, when attended with, Brom.
  - and sweating alternate, Caust.
  - in open air, Hep.
  - much internal, Caust.
- CHILLY, if the air is cool, Kali c.
  - about noon, Kali c.
- CHLOROSIS, erethic < in winter, Fer.
  - from defective or profuse menstruation, Fer.
  - with dirty, flabby, torpid skin, Nat. m.
- CHRONIC disease, deep-seated, progressive, Lyc.

- CICATRICES, of burns and scalds freshen up and become sore again, Caust.
- CIRCULATION, persons of a weak, slow, torpid, Sang.
  - feeble, blood stagnates in vessels, Carbo an.
- CLAY, potters and brickmakers who work in wet, Cal.
- CLIMACTERIC, irregularities of circulation occurrring at, Dig.
  - chest affections occurring at, Sang.
- CLIMAXIS, hot vertex during, Carbo v.
- CLOTHING feels uncomfortable, oppresses and annoys the wearer, Spong.
- COBWEB on face, sensation of, Bor., Brom., Calad., Graph., Ran. s., Sumb.
  - on forehead, tries hard to brush it off, Graph.
  - were lying on skin of face or hands, as if a, Bor.
- COLD easily, without knowing how or where, takes, Tub.
  - bathing, worse from, Aran.
  - every time patient goes out doors inclined to take, Kali c.
  - extremely sensitive to, Aran., Elaps.
  - exposure to, chaps and roughens the skin, Alumen.
  - from dry, cold winds, getting the head wet, sopping the hair to brush it, Sep.
  - from uncovering the head, takes, Acon., Bell., Rhus.
  - great liability to take, Cal., Kali c., Nat. m., Phos.
  - limbs, cold knees, awakens often from, Carbo v.
  - patients are generally, Caust.
  - persons sensitive to dampness and, Dul.
  - very sensitive to, Alumen.
  - very easily, patients who take, Phos.
  - water, complaints from working or standing in, Cal.
  - water, arms cold by putting hands in, Elaps.
- COLDNESS < by drinking and in cold, wet weather, Elaps.
  - of the extremities, persistent, Sang., Sep.
- COLCHICUM, from abuse of, Led.

Complexion dark, adapted to persons of, Alum, Ars. i., Bry., Nit. ac.
  and hair light, Hep.
  blotchy, red and thick skin, Kali b.
  dark or black, Cal. p.
  dark, slight and lean, poorly nourished, ill-developed, Kreos.
  dark, "swarthy," Cinch.
  dirty, Lyc., Nat. m., Psor., Sulph.
  fair, hair light, Spong.
  florid, Bell., Kali b.
  light, or fair, persons of, Cal., Sil., Tub.
  light, rather than dark, Sulph.
  pale, Cal., Fer., Lyc., Puls., Sang., Sil.
  pale, watery, milky, Dul.
  unhealthy, sickly, Lyc.
  very sallow or yellowish, chalky, Caust.
Complaints < by living in basements, on water, or working in cellars, Aran.
  affecting one organ, then another, Tub.
  beginning suddenly, ceasing suddenly, Bell., Tub.
  when warm weather sets in after cold days, Bry.
Comprehension difficult, Con.
  quick mental, Bell., Brom.
Condylomata, of long standing in cachectic subjects, Kali. i.
Confused, cannot find the right word for anything, Dul.
Confusion of ideas, Bap., Bell., Gels., Mel., Rhus.
Constipated, feels better in every way when, Cal.
Constipation, of nursing infants due to artificial food, Alum.
  feces long, slender, dry, tough, and hard like a dog's, voided with difficulty, Phos.
  frequent ineffectual efforts, Caust., Nux.
  great straining, must grasp the seat of the closet, Alum.
  hard, knotty, covered with mucus, Alum.

- Constipation, inactivity of rectum, total, Alum.
  - large, hard, dry, as if burnt, Bry.
  - menses during, Sil.
  - no desire for and no ability to pass until there is a large accumulation, Alum.
  - no inclination whatever, Bry., Op.
  - passes better standing, Aloe., Alum., Caust., Med.
  - soft, clayey, adhering to parts, Alum., Plat.
  - stool that has been partly expelled recedes again, Sil.
  - straining great as if rectum were paralyzed, Sil., Sulph.
- Constitutions, slow, torpid, Hep.
  - cachectic, broken down, in, Nit. ac.
  - melancholic, plegmatic, dark eyes, lowness of spirits, and indolence, Lach.
  - scrofulous, especially of the young, Carbo an.
- Consumption, would prefer death to wasting away with, Caust.
- Coryza, acute, great redness of mucous membranes of eyes, nose, throat, with violent sneezing and profuse lachrymation, Kali. i.
  - dry, constant need to blow the nose, but no discharge results, Sticta.
- Constriction, sensation of, Cac.
  - as if a band were around the affected parts, Nit. ac.
  - contact, caused by slightest, Cac.
  - iron band, prevented normal motion of the chest, as if an, Cac.
  - of lungs (not of chest) with every little cold, Phos.
- Cough and restlessness at 3 a. m., Bap., Kali c.
- Courage to do anything, cannot muster sufficient, Stan.
- Coverings of the neck feel too tight, all the, and must be loosened, Sep.
- Cranial bones thin and brittle, Cal. p.
- Cross, irritable, obstinate, wrathful, Hep.
- Croup, children with a history of, Spong.

CROUP or diphtheria, beginning in bronchi, trachea or larynx and extending upwards, Brom.

CUTTING pain, violent after stool, lasting for hours, Alumen, Nit. ac., Phos., Sanicula.

DAMP places, complaints < by living in, Aran.

DARK haired persons of sanguine choleric habit, Fer.
  side of everything, looks upon the, Caust.

DEATH, dread of, Acon.
  fear of, Ars., Nit. ac.
  longing for, Kreos.

DEBILITATED, Cal. p., Cinch., Fer., Kreos.
  "broken down," from exhausting discharges or diseases, systems once robust which have become, Cinch.

DEBILITY after profuse hæmorrhages, post-climacteric, Cinch.
  from loss of animal fluids, Nat. m., Phos.
  great from extremes of heat and cold, Lach.
  great from slight straining or overlifting, Carbo an.
  over-study from, Cinch.
  with lack of reaction after severe acute disease, Psor.

DENTITION, prone to intertrigo during, Cal., Caust., Lyc.
  convulsions during, Bell.
  diseases incident to, Cal.
  during first and second, Cal. p.
  occasional convulsions with the evolution of every group of teeth, Caust.

DESIRE, acids for, Alum.
  beer, Ars., Caust., Kali b., Puls.
  brandy, Ars., Nux.
  chalk, charcoal, clean rags, for, Alum.
  coffee, Ars.
  fruit, for, Alum., Ars.
  milk, Ars., Apis.
  sour things, Ars., Con., Dig., Puls.
  starch, for, Alum.

Desire, tea or coffee grounds, Alum.
things which when offered are refused, Bry.
vegetables, for, Alum., Ars.
warm food, Ars.
wine, Ars.
Desires, immediately, things which are not to be had, Bry.
Despairing, depressed, Ars.
Despondent, loss of hopefulness, Bap.
Diathesis, gouty, rheumatic, adapted to, Bry., Led.
lithic acid, Lyc.
psoric, or scrofulous, Hep., Psor., Sulph.
scrofulous, especially of children, Hep.
scrofulous, especially if mercurialization or syphilis be engrafted on a scrofulous base, Kali i.
scrofulous, persons of a, Iod.
scrofulous and rickety, adapted to, Bell., Sil.
strumous, Apis.
tubercular, Bell., Cal., Tub.
Diarrhœa, anus remains constantly open, the, Apis., Phos.
bowels were too weak to retain their contents, as if the, Sulph.
chronic, acts best when patients suffer from, Nit. ac., Phos.
drinking, or eating, after, Ars.
involuntary, Phos.
midnight, after, Sulph.
midnight, worse after, Ars.
profuse, pouring away as from a hydrant, Phos.
prostration, followed by great, Ars.
rectum, as if stayed in and could not be expelled, Nit. ac.
rectum, as soon as anything enters the, Phos.
straining great, but little passes, Nit. ac.
sudden, imperative, painless, driving out of bed early in morning, Sulph.

Diarrhæa, watery, with sago-like particles, Phos.
whenever she urinates, Alum.
Digestion, impaired, complaints which arise from, Cal.
weak from loss of vital fluids, especially excessive lactation, Carbo an.
Discharges, acrid and burning, Sulph.
from mucous surfaces, thin, ichorous, green, corroding, Kali i.
mucus tough, stringy, adheres to parts, can be drawn out into long strings, Kali b.
Disgust, the sight or even thought of pork causes, Puls.
Disposition, anxious, mild, tearful or excitable, Alum.
hateful, vindictive, Nit. ac.
Domestic affairs or health solicitude about, Sep.
Dread of men, of solitude, Lyc.
Dreams of robbers, dangers, etc., Psor.
Dressing in the morning, sits down several times to rest, while, Stan.
Dropsy, after ague, scarlatina, rheumatic fever, Dul.
Dropsical, after exposure to cold air, cold dwellings, Dul.
affections from suppressed skin diseases or suppressed sweat, Dul.
Drunk, confused as if, Bap.
Drunkards, headaches and hæmorrhoids of, Lach.
Dryness and erosions of mucous membranes, tendency to, Nat. m.
of mucous membrane of nose, painful, Sticta.
East winds, snow storm, or when snow is melting, exposure to, produces soreness and aching, Cal. p.
Eat, head aches if he does not, Lyc.
Eats freely, yet loses flesh all the time, Iod. Nat. m.
seldom, but much, Ars.
Eating, feels better after, Iod.
Ecstacy, with almost prophetic perceptions, Lach.
Effusions, serous inflammations that have advanced to the stage of, Bry.

Eggs, constant longing for, during sickness or convalescense, Cal.
Emaciated, big-bellied and thin persons, Lach., Sulph.
Emaciates rapidly during summer complaint, Nat. m.
Emaciation, Alumen, Iod., Nat. m.
  and great prostration of life forces, Ars. i.
  great, Phos.
  great, with mental irritability, cannot bear to be looked at, spoken to, approached or touched, Iod.
  loses flesh while living well, Ars., Cal., Con., Iod., Nat. m.
  of upper parts of body, lower dropsical, Acet. ac., Lyc.
  progressive, Acal.
  rapid, with loss of appetite, Kali c., Kreos.
  rapid and pronounced, Tub.
Emissions in tuberculous subjects, frequent, nocturnal, involuntary, Cal.
Emotions, ailments from, Kreos.
  every moral, causes trembling, Psor.
  severe ailments from even slight, Psor.
Emptiness or hollowness, sensation of, Sep.
  in whole body, as if it were hollow, sensation of, Kali c.
Enuresis nocturnal, Kreos.
  dreams he is urinating, Kreos.
  during deep first sleep from which child is aroused with great difficulty, Kreos.
  wakes with urging but cannot retain urine, Kreos.
Epigastrium, "gone" sensation in the, Stan.
Epistaxis, Cal., Carbo v., Fer., Lach., Mel., Phos.
  amenorrhœa with, Lach.
  anæmic children, cheeks flushed, color of face often changes, in, Fer.
  blood, blowing of, Lach.
  blood dark, fluid, or clotted, Lach.
  blood thin and black, Carbo v.

- EPISTAXIS, boys who grow too rapidly and mature too young, frequent attacks of, in, Cal.
  - climacteric, in incipient tuberculosis at, Lach.
  - debilitated or in the aged, Carbo v.
  - face pale before and after each attack, Carbo v.
  - fanned, wants to be, or the doors and windows opened, in, Carbo v.
  - frequent, profuse, easy, Carbo v.
  - menses, before, Lach.
  - menses should appear, when, Bry.
  - mental depression, better from, Mel., Psor.
  - morning, mostly in, Lach.
  - post-climacteric, Lach.
  - trickling on blowing, Lach.
  - typhoid, during, Lach.
  - worse in forenoon or at night, Carbo v.
- ERUCTATIONS, empty all day, as if every particle of food was turned into air, Iod., Kali c.
  - bitter after potatoes, Alum.
  - chronic lasting for years, especially in the aged, Alum.
  - relief from, Carbo v.
  - sour, Alum., Lyc.
- ERUPTIONS, ailments from, after suppression of, Caust., Dul., Sulph.
  - chronic diseases the result of suppressed, Sulph.
  - diseases resulting from suppressed, Psor.
  - diseases, skin very sensitive to, Sulph.
  - dry, tettery, itching, worse in winter, Alum.
  - skin is harsh and rough and readily takes on, Sulph.
  - suppressed, spends its injurious effects on the nervous system, producing epilepsy, chorea, &c, Caust., Psor., Sulph.
- ERYSIPELATOUS inflammation, prone to, Lach.
- EXCITABLE, very, Phos.
- EXCITEMENT, afraid to go where there is any, Acon.
- EXCRETIONS burn the parts over which they pass, Sulph.

EXERTION, mental or physical, patient dreads any, Sil.
EXHALATIONS and discharges offensive, fetid, Bap., Carbo v.
  of the body offensive, all, Hep., Psor.
EXHAUSTING diseases, complaints of persons who have suffered from, Carbo v.
  diseases, debilitated by, Carbo an., Cinch.
EXHAUSTION, extreme, Ars.
  exertion, from the slightest, Ars.
  great mental and physical, Lach.
  of body and mind, extreme, Spong., Stan.
EXOSTOSES, tophi and general tissue enlargement, Kali i.
EXPOSURE, to cold, damp, air or water, skin liable to cold from, sudden, Dul.
  and privation have become anæmic, impoverished, scorbutic, persons who from, Aran.
  effects of, Led.
  takes cold easily from every, Cal., Ham., Phos.
  to warm moist air, takes cold easily from, Ham.
EXTREMITIES, from knees to feet, coldness of, Carbo v.
EXUDATIONS, plastic, in throat and respiratory tract, Kali b.
  pseudo-membranous, firm, pearly, fibrinous, prone to extend to larynx and trachea, Kali b.
EYEBROWS light, Brom.
EYELASHES, long, silky, Phos.
EYES, black, Cal. p.
  blue, Bell., Brom., Cal., Mer., Tub.
  blue circles around the, Lyc.
  weak, after abortion, coition, measles, Kali c.
FACE, alabaster-like, Acet. ac.
  besotted expression, with a stupid, Bap., Gels.
  cadaverous, Ars. i.
  dark red, almost purple, Bap.
  earthy, Lyc.
  emaciated, Acet. ac.
  eruption of pimples, tubercules, and blotches on, Led.

FACE, extreme paleness of, which becomes red and flushed on least pain, emotion, exertion, or embarrassment, Fer.
  flushed, dusky, red, Bap., Bell., Mel.
  furrowed, Lyc.
  or head and face alone is hot, body cool, Arn.
  pale, unhealthy, Acet. ac., Ars. i., Cal., Iod., Sil.
  pale, with circumscribed red cheeks, Lyc.
  red when excited, in weak, delicate, chlorotic women, Fer.
  sallow, Ars. i.
  sunken, Acet. ac.
  the red, becomes deathly pale on rising from a recumbent posture, Acon.
  waxen, Acet. ac.
  yellow, Lyc.
  yellowness of, yellow spots on, or yellow spots around the mouth, Sep.
  yellow saddle across upper part of cheeks and nose, Sep.
FAINT and weak when going down stairs, can go up well enough, Stan.
  coughing, talking, walking, weakness, from, Ars.
  with weakness, Lach.
FAINTNESS, sudden prostration and sinking, Sep.
  and nausea, morning, in, Bry.
  bed, when rising up in, Bry.
  getting up, on, Bry.
  motion from slightest, Bry.
  pain from touch, often causing, Hep.
FAINTS from smell of flowers, Phos.
FAIR, blonde. delicate, Kreos.
  and plump, Cal.
  delicate skin, Phos.
FALLING, bad effects of, Mill.
FAN-LIKE motion of alæ nasi, Ant. t., Brom., Lyc.

- FANNED, desire to be constantly, *Carbo* v., Bap.
- FAT, corpulent, unwieldy, disposed to grow, Cal.
  - chubby, light-haired, short-necked children disposed to catarrhal and croupous inflammation, Kali b.
- FATIGUE from least exertion, Kreos.
  - unable to endure the least, from weakness and debility, Cinch.
- FEAR, afraid to go out, to cross the street, Acon.
  - great with nervous excitability, Acon.
  - life is rendered miserable by it, Acon.
  - the countenance is expressive of constant, Acon.
  - to go into a crowd where there are many people, Acon.
- FEARFUL, Ars.
- FEARS she will lose her reason, or that people will observe her mental confusion, Cal., Mel.
- FEBRILE heat, intense, Acet. ac.
- FEET cold (not damp), Caust.
  - constantly cold and damp, feel as if she had on cold, damp stockings, Cal.
  - must find a cool place for, puts them out of bed to cool them off, Sulph.
  - sore, cold sweat makes the, Lyc.
- FELON, aborting a, Sil.
- FEVER, skin hot and dry, no thirst during, Acet. ac.
  - catarrhal, with pain in elbow and knee joints, Myr.
  - every P. M. followed by perspiration, Bap.
  - hectic, Acet. ac., Cor.
- FILTHY smell, even while bathing, baby has a, Psor.
- FIRE, affected parts burn like, Ars.
- FISSURED, pain as if anus were, Nit. ac.
- FLATUS, no > from belching or passing, Cinch.
- FLATULENCE, excessive accumulation of, Lyc.
  - of stomach and bowels, excessive, Cinch.
- FLESHY, Bell., Cal.
  - persons, who suffer from catarrhal, scrofulous or syphilitic affections, Kali b.

FLORID, sanguine temperament, Phos.
FLUSHES, hot by day and cold at night, Lach.
  of heat, from chest to stomach or abdomen, Sang.
  of heat flying from head to stomach, Sang.
  of heat, followed by great nervous weakness and irregular intermitting pulse, Dig.
  of heat, passing over the body, Sang.
FONTANELLES and sutures, delayed closing of, Cal.
  open, large heads, San., Sil.
  remain open too long, or close and re-open, Cal. p.
FOOD, loathes even the thought of, Ars.
  extreme dislike to all, Fer.
  the simplest disagrees, Carbo v.
FOOT turns under in walking, Carbo an.
  hot, the other cold, one, Lyc.
  sweat, profuse, fetid, Lyc.
FORCES, rapid sinking of the life, Ars.
  sudden and complete sinking from slight causes, Ars.
FOREBODINGS, anticipations of evil, Acon.
FRECKLES, women with, Lach.
  hair, red, women with, Lach.
FRETFUL, ill-humor, irritable, Kreos.
FRIGHT, persons who have had a, with vexation, Acon.
  and vexation during menses, Acon.
FRIGHTENED, by an unusual sound, easily, Bor.
  by an anxious cry, the slightest noise, Bor.
  by sneezing, hawking, coughing, Bor.
  silk or paper, the mere rustling of, Asar., Bor., Taren.
FULL, always feels, Fer.
GANGRENE of the lungs, Carbo v.
GAS, excessive accumulation in stomach and intestines, Carbo v.
  everything she eats or drinks appears to be converted into, Kali c.
GASTRIC disorder, sausage, after old, Bry.
  cabbage, cheese, fruit, milk, after Bry.

- Gastric, potatoes, after, Alum., Bry.
  - salads, saurkraut, turnips, Bry.
  - symptoms apt to predominate, Sang.
- Girls, blonde, red-cheeked, scrofulous, Brom.
- Glands, mammæ, testes, atrophied, Kali i.
  - burning pains in, Carbo an.
  - cutting pains in, Carbo an.
  - hardness of, stony, Con.
  - hypertrophied, indurated, painful, Bad., Carbo an., Con., Iod.
  - induration, after contusions, blows, falls, Con.
  - injuries, the effects of old, Con.
  - lancinating pains in, Carbo an.
  - lymphatic, swollen, indurated, suppurating, in scrofulous or syphilitic, Carbo v., Kali i.
  - malignant, simple affections are prone to become, Carbo an.
  - of mammæ and testes in persons of a scrofulous, tuberculous or carcinomatous cachexia, Con.
  - scrofulous, enlargement and induration of, Bad., Iod.
  - stony, hard, unyielding, Brom., Carbo an., Cis., Con.
  - suppurate; discharge, thin, corrosive, curdy, Kali i.
  - swollen, after measles, scarlatina, diphtheria, Brom.
  - the harder they feel, and the more other symptoms are wanting, the better indicated, Iod.
  - women with a history of enlargement and induration of glands, Spong.
- Glandular affections, syphilitic, engrafted on a scrofulous base, Bad., Syph.
- Glandular and osseous diseases, predisposed to, Cal. p.
  - swellings, with or without suppuration, Mer.
- Goitre, family history of, Iod., Spong.
  - partially cured cases of, Iod.
- Gouty, Cal. p., Led.
- Greedy, miserly, Lyc., Sep.

GRIEF, ailmènts from, Cal. p.
  and sorrow, mental and nervous affections from long-lasting, Caust., Ign.
  and submissiveness, inclined to, Puls.
  or sorrow, chronic ailments after long-lasting, Ign., Op., Phos. ac., Lach.
GROWN too rapidly, youth who have, Phos.
GUMS, scorbutic, Mer.
HABIT, plethoric, full in young persons especially girls, of a, Acon.
  scrofulous, spare, dry, thin, subjects of, Alum.
HÆMATURIA, Ars., Cal., Con., Hep., Kreos., Mill., Phos., Puls.
HÆMORRHAGE, atonic, from stomach, bowels, boronchi, lungs, Alumen.
  bloated, watery or bright red, Dul.
  blood dark or dark and clotted, Cinch.
  blood dark, incoagulable, Lach.
  blood light, non-coagulable, Alumen, Nit. ac.
  bright red, from all the orifices of the body, Ipec.
  bright, florid, Mill.
  ears, with ringing in, Cinch.
  epistaxis, at night, blood light and hanging in clots from the nose like icicles, Mer.
    hot, clear blood, Dul.
  fainting, loss of sight, general coldness, with, Cinch.
  frequent and repeated, Phos.
  from all the mucous outlets of the body, Cinch.
  from nose, lungs, rectum, Kali i.
  in old women, Mer.
  injuries, after mechanical, Arn., Fer. p., Mill., Rhus.
  mechanical origin, especially from a fall, of, Mill.
  passive, yet bright red, Mill.
  post-climacteric, Lach.
  predisposes to, Acet. ac., Fer., Phos., Sulph.
  profuse, passive, dark, Kreos.

- Hæmorrhage, sour things, longing for, Cinch.
  - teeth, after extraction of, Alumen.
  - typhoid, with fetid stools and great prostration, Kreos.
  - vicarious, from nose, stomach, rectum, bladder, Phos.
  - wet, < after getting, Dul.
  - wounds, bleed profusely, Mill.
  - wounds, small, bleed much, Fer., Kreos., Lach., Phos.
- Hæmorrhagic tendency, general, Fer, Lach.
- Hæmoptysis, Acal., Acon., Arn., Cinch., Fer., Ham., Ipec., Kreos., Mer., Phos., Puls.
  - in evening, dark, clotted lumps, Acal.
  - in morning of pure, bright red blood, Acal.
  - in young boys or girls subject to consumption, who are in the incipient stage of phthisis florida, Fer.
  - suppuration of the lungs after, Mer.
- Hair and eyes black, Ars. i., Nit. ac.
  - and eyes dark or black, Iod.
  - bushy, dry, rough, lustreless, Psor.
  - cut, complaints from having, Acon., Bell., Hep., Rhus.
  - dark, Arn., Bry., Caust., Dul., Sep.
  - light, flaxen, Bell., Brom., Cal., Mer.
    - persons with, who are easily excited, Con.
  - matted at tips, sticks together, tangles easily, Bor., Lyc., Psor.
  - red, sandy, Phos., Puls.
- Hard, every thing on which he lies seems too hard, Arn.
- Hasty speach and hasty drinking, Hep.
- Head congested, hot, painful, Bell., Mel.
  - sweats profusely while sleeping, wetting the pillow far around, Cal., Sil., San.
  - thinks she can lift it off, Ther.
- Headache, must lie down in bed, Fer.
  - burning vertex, Lach.
  - commencing in the morning and gradually increasing till evening, Bry., Nat. m.
  - constipation, with dull pain in forehead, from, Bry.

- HEADACHE, eating and drinking, with aversion to, Fer.
    - every two or three weeks for two, three, four days, Fer.
    - ironing from, Bry.
    - on coughing, Bry.
    - pains hammering, beating, pulsating, Fer.
- HEART would cease beating if she ceased moving, fears, Gels.
    - would stop beating if she moved, sensation as if, Dig.
- HEAT, animal, constitutions deficient in, Alum.
    - and cold, extremes of cause great debility, Lach.
    - in the affected part, sensation of, Sulph.
- HEAVINESS of the whole body, great, Spong.
- HECTIC, beginning at 2 or 3 P. M. daily, with circumscribed redness of cheeks, Sang.
    - can bear only slightest covering while fever is on, even in winter, Coral.
    - can be covered and sleeps well after midnight, Coral.
    - coming on at 9 or 10 A. M. lasting till midnight, Coral.
    - complexion sallow, features sunken, Carbo v.
    - intense nervousness and restlessness with, Coral.
    - night sweats, exhaustive, profuse, putrid, sour, Carbo v.
    - relieved without leaving prostration, Coral.
    - with cough, dyspnœa, diarrhœa and night sweats, Acet. ac.
    - with drenching night sweats, not exhausting, Acet. ac.
    - with general heat or heat returning periodically during day, and great thirst in P. M., evenings and sometimes all night, Sil.
- HERPES circinnatus, in isolated spots on upper parts of body, Sep.
    - in clusters or intersecting rings, Tell.
- HOME, desires to get out of bed and go, Bry.
- HOT flushes during the day with weak faint spells, Sulph.
    - weather, from cold drinks or ices in, Bry.
    - weather complaints in, Kali b.

- Hunger, canine, alternating with loss of appetite, Fer.
  - canine, the more he eats the more he craves, Lyc.
  - ravenous, must eat every few hours, is not satisfied, Iod.
- Hungry at night, feels he must eat or he would faint, awakens, Phos.
  - but soon satisfied, soon filled up, Lyc.
  - cannot wait for dinner, Sulph.
  - in the middle of the night, must eat, Psor.
- Ichorous, suppurations, benignant change into, Carbo an.
- Ill, from very slight causes, persons who become, Carbo an.
  - humor, paroxysms of peevish, Sep.
  - when he is not, thinks he is very, Psor.
- Illness, anxiety about his, Nit. ac.
- Imagination, persons of vivid, Lach.
- Impending evil, apprehensive of, Kali i.
- Indifference, cool, to one's family, Fl. ac., Sep.
- Indolent, does not want to do anything, an exertion to think, Sep.
- Infiltration interstitial, enlargement of tissues by, Kali i.
- Intellectual development, young persons of brilliant, Bell.
- Intellectually keen, but weak in muscular development, persons who are, Lyc.
- Iodine, abuse of topical applications of, Ars.
- Irritable, Ant. t., Ars., Bry., Caust., Dul., Iod., Lyc., Sil.
  - and melancholic, Lyc.
  - nervous, restless, easily startled, Psor.
- Irritability, with intolerable mental, cannot bear to be looked at, spoken to, approached or touched, Ant. t., Iod., Sil.
  - excessive physical, Nit. ac.
  - of mind and body, Phos.
  - want of nervous, Carbo v.
- Iron hand, sensation as if the heart was grasped by an, Cac., Iod.
- Ischuria, in children from wading in cold water, Dul.

Itching, intolerable of the whole body, when getting warm in bed, Alum., Psor., Sulph.
  scratches, until it bleeds, then becomes painful, Alum.
  so violent toward evening as to drive one wild, Kreos.
Jerking pain in inner parts, Nit. ac.
Joints unnaturally weak, Carbo an.
Juncture of mucous surfaces, smarting and burning at, Nat. m., Sulph.
Labor pains, cease from hæmorrhage, Cinch.
  cannot bear to be touched, not even her hands, during, Cinch.
Lachrymation, tears stream down the face whenever he coughs, Nat. m.
Lachrymose, cannot help crying, Apis, Puls.
Lactation, excessive causes weak digestion, Carbo v.
Laughter or tears, easily moved to, Puls.
Lean and stoop shouldered, persons who walk and sit stooped, Sulph.
  thin, predisposed to lung and hepatic affections, Iod., Lyc., Phos., Sulph.
Leaning forward, with elbows on knees >, Ars., Kali i.
Legs, weak and crooked, Cal., Cal. p., Sil.
Leucorrhœa, acrid, profuse, albuminous, Alum., Bor.
  appearing two weeks between the catamenia, Bor., Bov.
  running down to the heels in large quantities, Alum.
  warm water flowing down, with a sensation of, Bor.
Liability to take cold in the open air, Kali b.
Lids, bag-like swelling between upper lids and eyebrows, Kali c.
Life, young persons or girls who lead a sedentary, Acon.
  the two extremes of, the aged and the young, Cal.
Liquids only, can swallow, Bap., Kali brom.
Listless, nervous, weak, Stan.
Little things, greatly concerned about, Con.
Looseness of bowels, chronic, patients disposed to, Nit. ac.

Loquacity great, wants to talk all the time, jumps abruptly from one idea to another, Lach.
Love disappointed, ailments from, Cal, p.
Low spirited, feels like crying all the time, but crying makes her worse, Stan.
Lung, affects the r. upper and middle third, Ars., Ars. i.
  lower lobe of right, Kali c.
    lobe of left, Nat. s.
  upper and middle third, acts most on, Cal.
    third, affects the r., Bad.
Lymphatic, best suits the, Bap.
Manners, persons of easy, graceful, Phos.
Marasmus from impaired nutrition, Iod., Nat. m.
Measles, has been troubled ever since with asthma or something else, Carbo v.
Mechanical injuries, long impressed by even slight, Arn.
Medicinal action, want of susceptibility to, Carbo v.
Melancholy, sad, hopeless, Ars., Caust.
  religious, Mel., Psor.
Membranes mucous, catarrhal affections of, Alum.
  and glands, increased secretion of, Dul.
  mucous, ulceration of, Bap.
Memory enfeebled, Con., Lach., Sulph.
Menses, exhausted physically and mentally after, Alum.
  epistaxis and checked, or epistaxis when menses should appear, Bry.
  every two weeks, Cal. p., Trill.
  exhausted during flow can hardly speak, feels so, Carbo an.
  flow during the day, ceasing when lying down, Caust.
  intermits two or three days and then returns, Fer.
  laugh and cry immoderately during, nervous patients who, Fer.
  movement the least < flow, must keep perfectly still, Bry., Fer.

- Menses, scanty or suppressed, with amenorrhœa, anæmia, chlorosis, Cal.
  - short, too feeble, too, Lach.
  - suppressed from fright or shock, Acon.
    - from getting the feet wet, Puls.
  - time, at regular, Lach.
  - too early in young girls, flow bright red, Cal. p.
  - too early, too profuse, and after ceasing a little is passed from time to time for days, Caust., Kreos.
  - too early, too profuse, too long lasting, Cal., Cal. p.
  - too late, flow scanty, slimy, intermittent, increases in P. M., evening chilliness, Puls.
  - too late, in adults, at first bright, becoming dark, Cal. p.
  - too soon, too profuse, too long lasting, with fiery red face and ringing in ears, Fer.
  - too soon, last too long, flow dark, not profuse, Carbo an.
- Menstrual effort, the breasts become enlarged, sore, and painful, at every, Con.
  - flow relapsing, least mental excitement causes profuse return, Cal., Sulph.
    - always feels better during, if normal, Lach., Zinc.
    - dark, lumpy, black, or acrid, Lach.
    - pains all relieved by the, Lach.
    - pale, watery, debilitating, Fer.
- Menstruation, feels badly a week before, Kali c.
  - after fright and vexation during, Acon.
  - vicarious, Bry., Phos., Psor.
- Mentally active and precocious, physically weak, Tub.
- Mental effects of injuries about the head, Nat. s.
  - effort, inability to sustain any prolonged, Con.
  - excitability, quick comprehension, Lach.
  - irritability; passionate, spiteful; apprehension of impending evil, great, Kali i.
  - irritability, laughing or weeping involuntary, Sep.
- Mercury, where syphilitics have been injured by, Lach.

METRORRHAGIA in cancer, pouring out freely and then
ceasing for a time, Phos.

MIND weakened and wanders, Nit. ac.
- weak, inability to control or fix on anything, Bap.
- morose, obstinate, peevish, Dul., Kreos.

MORTIFICATION, ailments from, Bry., Col., Staph.

MOTION, downward, dread of, Bor.

MOUNTAIN climbing, asthma after, Ars.

MOUTH in last stages of phthisis, for the sore, Lach.

MUCOUS membrane of air passages, great dryness of, Bell.
- catarrhal affections of, with copious secretion of clear, watery frothy mucus, Nat. m.
- great paleness of, especially of the mouth, Fer.

MUCUS, increased secretion of, from fauces and bronchi, Bap.

MUSCLES easily strained from overlifting, Cal., Carbo an.
- rigid, firm, Arn., Caust., Sep.
- soft and flabby, Hep.

MUSCULAR fibre firm, Bry.

MUSIC, the soft, sad, strains make her sad, Nat. s.

NAUSEA and vomiting, from the odor of cooking food, Colch., Stan.
- in the morning, Stan.

NECK unable to support the head, Cal. p.

NERVOUS, excessively, Bor.
- quick motioned, quick tempered, Sulph.

NIGHT, pains < at, in diseases of bones, periosteum, Mer.

NIGHT-WATCHING, care, trouble, ailments from protracted, Caust., Coc.

NOSE, crops of small, intensely painful boils in, Tub.
- discharge in clear masses and violent pain from occiput to forehead if discharge ceases, Kali b.
- dryness and pressive pain in root of, Alum., Kali b.
- dull heavy pressure in forehead and root of, Sticta.
- plugs, clinkers from post nares, Kali b., Sep.
- ropy, tough, green, bloody, offensive, Kali b., Nit. ac.

NUMBNESS of limbs, sensation as if circulation ceased, Lyc.
NURSING women, the hair falls out when touched, Nat. m.
OBESITY, inclined to, Kali c.
OBSTINATE, headstrong, cry when kindly spoken to, Sil.
OCCIPUT coldness on, Cal. p.
ODOR of body follows despite bathing or washing, Sulph.
    from the body produces nausea and disgust, Sulph.
    of stool follows him as if he had soiled himself, San., Sulph.
OFFENSIVE, breath and sputa are very, Sang.
OLD men, debilitating diseases of, from enforced continence or sexual excesses in youth, Con.
    people, diarrhœa and great weakness, with heaviness and trembling of limbs, Nit. ac.
        dropsies, paralyses, and diseases of, Kali c.
        for the diseases of, Con., Alum.
    women, old maids, hypochondriacal, with rigid muscular fibre, Con.
ONE hand hot, the other cold, Dig.
        icy cold, the other warm, Cinch., Ipec.
ORGANIZATION, highly sensitive, Brom., Phos.
OUTLETS of body, affections of mucous, Nit. ac.
OVER EXERTION, effects of, Mill.
OVERGROWN boys with weak chests, Cal., Cal. p., Iod., Phos.
        very tall for age, Kreos., Phos.
OVERLIFTING, bad effects of overstraining, never recovered from, Carbo v.
    even slight, causes great debility, Carbo an.
OVER-SENSITIVE, even cries when thanked, Lyc., Puls.
    to either heat or cold, Ipec.
    to external impressions, light, noise, odors, Phos.
OZENA, discharges, corroding, fetid, yellow, Nit. ac.
    green casts every morning, Nit. ac.
    obstructed, dropping of clear, bloody water, Nit. ac.
PAINS, acute in r. chest, < from slightest pressure on intercostal spaces, and lying on l. side, Phos.

PAINS, appear suddenly, disappear gradually, Puls.
        and disappear suddenly, Kali b., Bell., Mag. p., Nit ac.
    borne, are not well, Nit. ac.
    burning, Apis., Ars., Carbo v., Phos., Sulph.
    chilliness accompanied with, the more severe the pain the harder the chill, Puls.
    cramping or drawing in inner parts, Sep.
    darting, springing, like chain-lightning and ending with a sharp vice-like grip, Cac.
    erratic, rapidly shifting from one part to another, Puls.
    extend from other parts to back, Sep.
    gnawing here and there as from ulcers, Nit. ac.
    increase in proportion as affected parts are kept quiet, Dul., Rhus.
    in small spots, can be covered with the point of the finger, Kali b.
    migrate rapidly from one part to another, Kali b.
    nervous, cannot endure, Arn.
    neuralgic, every day at same hour, Kali b.
    sensitiveness, excessive to, Sep.
    shuddering, with, Sep.
    sleep during, Nit. ac.
    sore bruised feeling through body, as if beaten, Arn.
    sticking, pricking as from splinters, Nit. ac.
    stitching, darting, worse during rest, and when lying on the affected side, Kali c.
    tearing, drawing, tensive, excited by slightest chill, Phos.
    tension, which increases until very severe and then "lets up with a snap," Puls.
    weather or temperature, on change of, Nit. ac.
    worse at night, Bry., Mer., Syph.
PAINLESSNESS, with most complaints, Stram.
PALE and delicate, complaints of persons who are, Led.
    and sallow, with pimples on forehead and nose, Sep.

PALE, weak, delicate, irritable, wilful, Kreos.

PALPITATION < from least exertion, Iod.
  < from least motion, Dig.

PARALYSIS, of single parts; of r. side, Caust.

PARTS, become white, red, Fer.

PARTURITION, complaints following, with backache, sweating, weakness, Kali c.

PAST troubles, constantly thinking about his, Nit. ac.

PEEVISH, excessively, Ars., Dul., Fer., Hep., Caust., Kreos.
  angry at least trifle, Hep.

PERCEPTION, quick, lively, Phos.

PERIOSTEUM, bones, swelling of, pains worse at night, Kali i.

PERMANENTLY improve, when well selected remedies fail to, Psor.

PERSONS, catarrhal affections, predisposed to, Bor.
  complexion light, hair light, with, Bor., Cal.
  disputative, easity excited, fretful, Fer.
  dry, withered looking, Alum.
  mentally and physically changed by illness, Lach.
  pleasant, jovial when well, irritable when sick, Bell.
  who are extremely well or very sick, Bell.

PERSPIRE when walking in open air, tendency to, Caust.

PERSPIRATION, profuse attends nearly every complaint, but does not relieve, Mer.

PHTHISIS, caused or < by mal-treated syphilis, Myr.
  of debauchees, drunkards, Cinch.

PLETHORA, from sudden cessation of an accustomed discharge, Sulph.

PLETHORIC, face red, Arn., Bell.

PLEURITIC effusion and dropsy in old women, Cinch.

PNEUMONIA, abscess following hepatization in, Mer.
  catarrhal, acute degenerations following repeated attacks of, Ars. i.
  or pleurisy badly treated or neglected, Lyc.
  with hæmoptysis and purulent expectoration, Lyc.

- POISON, diseases which depend on a virulent, Nit. ac.
- POST-CLIMACTERIC diseases of women, Kreos., Lach.
- POSITION, horizontal cannot sleep or breathe when lying in a, Ars. i.
- POSTURE, recumbent, on rising from, the red face becomes deathly pale, Acon.
  - on rising from, becomes faint or giddy, inclines to fall over, Acon.
  - potatoes disagree, Alum.
- PRECOCIOUS mentally one of the first manifestations, Bell.
- PREGNANCY, bathing, must close her eyes while, Phos.
  - vomiting of, obstinate cases when Lactic acid or the best selected remedy fails, Psor.
  - water unable to drink, during, Phos.
- PRESSURE as from a stone in pit of stomach > by eructations, Ars., Bry., Cal., Mer., Nux, Sep.
  - intolerance of, Bap.
- PROLAPSUS uteri in hot weather, Kali b.
    - et vaginæ, < during stool, Stan.
- PROSTRATION and great weakness, after symptoms have disappeared, Ars., Brom.
  - great from climbing mountains, or severe muscular exertion, Ars.
  - great, with tendency to decomposition of fluids, Bap.
- PSORINUM, Sulphur, or the indicated remedy fails to relieve or permanently improve, when, Tub.
- PUBERTY, girls at or near, tall, rapidly growing, Cal. p.
- PULSE, extremely slow when at rest, Dig.
  - full, firm, globular, bounding, Bell.
- PUPILS, chronic dilation of, in children at puberty, Cal.
- PUS, acrid, fetid, ichorous, yellow, tendency to disorganization, Kreos.
  - offensive, becomes ichorous, or a bloody serum instead of pus, Carbo v.
- QUININE, abuse of, Ars., Fer., Puls.
  - deafness after the abuse of, Cal.

- Raise a great deal, sensation as if he wanted to, Bap.
- Recovery, hopeless of, thinks he will die, Psor.
- Relapsing, complaints that are continually, Sulph.
- Restless, cannot get an easy position nor lie still a moment at night, Caust.
  - hot, kicks off the clothes at night, Sulph.
  - mentally, physically too lifeless to move, Bap.
  - must move, but motion does not relieve, Caust.
- Restlessness, extreme, Ars.
- Robust, best suits the, Bap.
- Rooms, wet and damp, from sleeping in, Ars. i.
- Rheumatism, chronic periosteal, of syphilitic or mercurial origin, Kali i.
- Sad, low-spirited, Psor.
- Saliva, coppery, fetid, profuse, Mer.
  - metallic, soapy, stringy, bloody, tenacious < after midnight, Mer.
- Sallow people with cold extremities, haughty, violent disposition when sick, Lyc.
- Salt in food, for the excessive use of, Phos.
- Satiety, constant sensation of, Lyc.
  - of life, contemplates suicide, Nat. s.
- Scalp, itching of the, children when disturbed in sleep scratch the head on waking, Cal.
  - sore, cold crawlings on, Cal. p.
- Scattered feels, and tosses about to get the pieces together, Bap.
- Scratch or injury maturates, the slightest, Cal., Cham., Graph., Hep., Sil.
- Sea bathing, bad effects of, Ars.
- Secretions, great foulness of, Carbo v.
  - acrid and irritating, Nat. m.
- Self-willed, children who are, Cal.
- Senses, over-excitability of all the, Bell.
- Sensitive, nervous, threatened with delirium or convulsions on slightest ailment, Bell.

SENSITIVE to touch, to pain, to draughts of air, Cinch.
    to external impressions, cannot bear slightest draught of air, noise, cold, touch, etc., Hep.
SENSITIVENESS to contact, extreme, dread of touch out of all proportion to actual pain, Hep.
SEXUAL desire absent in fleshy people, Kali b.
    organs, affections beginning on r. side of, Spong.
SICK HEADACHE, begins in the morning, increasing during day, lasts till evening, sleep >, Sang.
    chronic, since some severe disease of youth, Sil.
    every week or every other week, Sulph.
    exhausting, prostrating, weakening, Sulph.
    occiput over the vertex and localizing over r. eye, Sang.
    of school girls, with diarrhœa, Cal. p., Nat. m.
    pain rises from nape to vertex, as if coming from spine, locating in r. eye > pressure and warmth, Sil.
    persons, with a history of chronic, Sang.
    relieved by rest and closing the eyes, Bry.
    rising on first opening the eyes in morning, when, Bry.
    seven days, occurs every, Sang.
    spirituous liquors, with intolerance of, Fer.
    stooping as if the brain would burst through the forehead, when, Bry.
    vertex coldness on the < moving the head and stooping, Sep., Verat.
    vertex hot with cold feet and burning soles, Sulph.
    vertigo, heaviness, pressure, and rush of blood to head, with, Bry.
    vomiting, usually terminates in, Sang.
SKIN affections, especially of scalp, very sensitive, Hep.
    affections are moist, suppurative, sensitive to touch, and spread by means of new pimples just beyond the old margins, Hep.
    and muscles lax and flabby, Bor., Mer., Spong.

- Skin, cobweb, were lying on face or hands, sensation as if a, Bor., Graph.
  - finger joints, severe itching on back of, Bor., Nat. c., Sep.
  - harsh, dry, flabby or yellow, Nat. m.
  - pallor of, Fer., Sang.
  - thin, white, fair, delicate, Bell., Brom., Cal.
- Sleep, cannot go to, because she cannot get herself together, Bap.
  - unrefreshing, Cinch.
- Sleepless first part of night, sleeps late in morning, Puls.
  - from intolerable itching, Psor.
- Sleeplessness, from severe muscular exertion, Ars.
- Slime and mucus, mouth full of, Nat. s.
- Slow to act, indecisive, Hep., Puls.
- Shivering, many symptoms are accompanied by, Acon.
- Shock, mental, for the effects of, Acon.
- Shooting himself, must use self-control to prevent, Nat. s.
- Sinking, empty, "gone" sensation in the epigastrium, Stan.
- Soles, burning of, Graph., Lach., Lyc., Sang., Sulph.
- Solid food gags, the least, Bap., Sil.
- Sore and bruised, parts rested on feel, Arn., Bap.
  - mucous membranes are, Nat. m.
- Soreness < in joints and < from least motion, Cal. p., Bry., Dul., Rhus., Ruta.
  - and aching, a general feeling of, from exposure to damp, cold, changeable weather, Cal. p.
- Sour, the child smells, Hep.
- Spasms of single muscles or of the whole body, Bell.
- Special senses seem too acute, all the, Cinch.
- Spirituous liquor intoxicates, smallest quantity of, Con.
- Splinter were being stuck into the affected parts on the slightest contact, sensitive as if a, Nit. ac.
- Spring, getting well in and returning in autumn, Cal. p.
- Squeezed, sensation as if the heart was, Cac., Iod., Sulph.
- Squirming in nostril as of a small worm, hay fever, Nat. m.

STAIRS, great weakness and loss of breath on going up, Cal., Iod., Mer.

STANDING is the most trying position, Sulph.

STATURE, the two extremes of—the tall and erect and short and stout, Cal.

STITCHING, tearing pains, Bry., Kali c.

STICKING pain as if done with a blunt instrument, followed by a pain as if after a blow, Dul.

STOMACH about 11 A. M., weak, empty, "gone," faint sensation in the, Sulph.
- distended, extremely sensitive, Kali c.
- fruits and cold drinks lie like ice on the, Elaps.
- pressure, painful on, Cal.
- swollen like a saucer turned bottom up, pit of, Cal.
- water, feels as if full of, Kali c.
- weak, sore, empty feeling at pit of, not > by eating, Carbo an.
- would burst after, eating or drinking sensation as if, Carbo v.

STONE-CUTTERS, chest complaints of, with total loss of strength, Sil.

STOOL after, long-lasting rectal pain, Alumen, Nit. ac., Aloe.

STOOP in walking and be hollow chested, inclined to, Phos., Sulph., Tub.

STRAINED from lifting small weights, parts easily, Carbo an., Cal.

SUCKLINGS and children who become thick and gross as if fat, Cal.

SUFFERINGS of others, ailments from witnessing the, Caust.

SUFFOCATIVE attacks, nightly, wants doors and windows open, Sulph.

SUMMER, after taking cold or getting hot in, Bry.

SUPPRESSED foot-sweat, diseases caused by, Sil.

SUPPURATION, controls the process of, Sil.
- great tendency to, Hep.
- profuse, Mer.

SUPPURATION, reducing profuse, Sil.
SUPPURATES, every cut or slight injury, Bor., Cham., Hep., Sil.
SULPHUR or the indicated antipsoric fails to act, when, Psor.
SWEAT, all the complaints cease after the, Psor.
 debilitating, exhausting, fetid, profuse, Carbo an.
 drenching night, not very exhausting, Acet. ac.
 during sleep or exercise, Cinch.
 easily and take cold in consequence, persons who, Cal.
 eating when, Carbo an.
 exertion, on the slightest, Bry., Carbo an., Cinch., Fer., Hep., Phos., Psor., Sil., Stan.
 from least exertion, or has exhausting night, Psor.
 most profuse on, thighs and feet, Carbo an.
  knees, in hollow of, Carbo an.
 offensive night, Carbo an.
 profuse, sour or musty, debilitating and of an offensive, cadaverous odor, Sil., Stan.
  walking, when, Carbo an.
 without thirst, Cinch.
 < after midnight and from least exertion, Sil.
 yellow, stains the linen, Carbo an.
SWEATING and chilliness alternate, Caust.
SWELLINGS, cold, Mer.
SYMPTOMS return again and again, when patient seems to get almost well, Sulph.
SYCOSIS for the cure of when symptoms agree, Nat. s., Thuja.
TAKE cold easily, persons suffering with chronic disease, Cal., Kali c., Hep., Nat. s., Nit. ac., Phos.
  in the chest, patients nearly always; next attacks the nose without > to chest, Phos.
TALKING, fatigues and excites the pains, Sulph.
TALL, slender, narrow-chested, adapted to the, Phos., Tub.
 and very erect when walking, standing or sitting, Cal.
TEETHING children and old people, for, Nat. m.

- TEARS or laughter, easily moved to, Lyc., Puls.
- TEMPERATURE, excessive sensibility to changes of, Carbo v.
- THIRST, burning, without special desire to drink, Ars.
  - in Bright's disease, chronic diarrhœa, dropsy, Acet. ac.
  - drinks often but little at a time, Ars.
  - drinking large quantities of cold water, neither affects the stomach nor relieves the, Acet. ac.
  - for cold water, burning, Ars.
  - great, for large quantities at long intervals, Bry.
  - intense, burning, insatiable, Acet. ac.
- THIRSTLESSNESS with nearly all complaints, Puls.
- THIN, emaciated, unable to stand, children are, Cal. p.
  - persons of rigid fibre, Nit. ac.
- THINK, indisposed to, or want of power to, Bap.
- THREE PERSONS, thought she was, and could not keep them, Bap., Petr.
- THROAT and neck, thin and shrunken, Nat. m.
  - pressure on the, no matter how little it is covered, Sep.
- THROBBING or pulsating in internal organs, sensation of, Sep.
- THUNDER-STORM, feels restless for days before and during a, Phos., Psor.
- TIRED, always wishing they could get rested, Apis.
- TOBACCO CHEWING, patients who suffer from effects of, Ars.
- TOUCH, bleeds easily from the slightest, Carbo v., Lach., Phos.
  - great sensitiveness to, Acon., Apis, Cinch., Lach.
  - the whole body is sensitive to, Acon.
  - causes pain and makes patient shrink, Kali c.
  - startles, especially on feet, slightest, Kali c.
- TOUCHED, cannot bear to be, Kali c.
  - by persons coming near him, fears being, Arn.
- TONGUE, coated golden yellow, Nat. m.
  - coated thick yellow at base, Mer., Iod.
  - coated thickly as if covered with fur < mornings, Mer.
  - dirty yellow with foul breath, Mer.
  - flabby, swollen, shows imprint of teeth, Mer.

- TONGUE, foul very, but becomes clean at each menstrual flow, returning when flow ceases, Sep.
  - moist, covered with mucus, Mer.
  - slimy mucus, coated with, Nat. s.
- TORN, pain as if anus were, Nit. ac.
- TRAUMATISM, mental, Nat. s.
- TREMBLING all over, Lach.
  - nervous, great prostration, Apis.
  - of the arms and legs, they feel as heavy as lead, Stan.
- TUBERCULAR deposit in apex of lungs, usually left, Tub.
- ULCERS, base raw looking, Nit. ac.
  - bleeding, easily, Nit. ac.
  - burning, cancerous, gangrenous, Kreos.
  - cancerous, bleed easily, are unhealthy, Kali c.
  - edges, irregular, zigzag, Nit. ac.
  - mercury or syphilis after, engrafted on a scrofulous base, Nit. ac.
  - pricking pains on contact in the, Nit. ac.
  - putrefying, spongy, Kreos.
- ULCERATION with burning pains, Carbo v.
- UNCOVERED, cannot bear to be, Hep., Nux., Psor.
  - coughs when any part is, Hep.
- UNEASINESS, the clothes cause an, Lach.
- UNPLEASANT impression, prostrated by the least, Phos.
- UPPER PART of body, heat of, coldness of lower, Arn.
- URINATING, backache > by, Lyc.
  - child cries before, Bor., Lyc.
- URINE, can scarcely retain it a moment, Apis.
  - cider barrel, like the remains of a, Nit. ac.
  - cold when it passes, Nit. ac.
  - intermitting flow of, flows in a full stream at first, then stops, flows again, etc., Con.
  - involuntary, from paralysis with constant ineffectual urging, Caust.
  - horses, strong smelling like, Nit. ac.
  - incontinence of, with great irritation of parts, Apis.

URINE, involuntary, when coughing, sneezing, walking, Bry., Caust., Nat. m., Puls., Scilla., Taran., Verat.
nocturnal, unconscious of it, Caust.
passes so easily is not sensible of it, Caust.
red sand in, Lyc.
on child's diaper, Bor., Lyc., Phos.
scalds severely when passed, Apis.
scanty, dark brown, Nit. ac.
scanty, suppressed, Bell.
sediment scarcely ever contains a, Acon.
voided while straining at stool, Aloe., Alum.

URTICARIA, every time patient takes cold or is long exposed to cold or damp, Dul.

UVULA, bladder-like appearance of, much swelling but little redness, Kali b.

VACCINATION, bad effects of, Malan., Sil., Thuja.

VEGETABLES and fruit, gardeners and fruit growers from handling cold, Cal., Mag. p., Zinc.

VEHEMENCE and anger, persons inclined to, Bry.

VEINS show through the skin, the distended, Carbo an.

VENOUS capillaries, slightest irritation causes bleeding from, Carbo v.
congestions, particularly of portal system, Sulph.
plethora of elderly people, cheeks, lips and finger nails blue, Carbo an.

VERTIGO, ascending, a height, on, Bor., Cal., Fer.
bed, when turning over in, as though contents of room were turning in a circle, Con.
descending, with disposition to fall forwards, Fer.
lying down, < when, Con.
must keep the head perfectly still, Con.
rising suddenly, things grow black, on, Fer.
stairs, is dizzy, out of breath, has to sit down, on going up, Cal.
walking over or crossing a bridge, on seeing running water, Fer.

- VERTIGO, water with balancing sensation, as if on, Fer.
- VEXATION and fright during menses, Acon.
- VEXED, easily, Ars.
- VERTEX, constant heat of, Sulph.
- VITAL FLUIDS, anæmia from loss of, Cinch., Fer., Kali c., Nat. m.
  - ailments from loss of, Cinch., Fer., Phos.
  - forces, weariness and complete prostration of, Nat. m.
  - heat, lack of, especially in chronic diseases, Sep.
    - in acute diseases, Led.
    - persons deficient in, even when taking active exercise, Sep., Sil.
    - sinks to a minimum, Carbo an.
    - symptoms are attended with coldness and lack of, Led.
  - powers have become weakened, cachectic individuals whose, Carbo v.
    - nearly exhausted, Carbo v.
    - want of reactive, Carbo v.
    - weakened resistance of, Carbo an.
  - weak digestion from loss of, Carbo an., Cinch.
- VOMITING, midnight immediately after, Fer.
  - painless of all solid food after eating, Fer.
- WALK, but cannot stand, patient can, Sulph.
  - children have difficulty in learning to, Cal.
  - slow in learning to, Cal. p.
  - stooping like an old man, Sulph.
- WARMLY, cannot cover up too, but it does not relieve, Caust.
- WARTS, especially on eyelids, Caust., Thuja.
  - large, jagged, pedunculated, Caust.
  - moisture exuding, easily bleeding, Caust.
  - small, all over the body, Caust.
- "WASHERWOMAN'S remedy," laundry work, complaints that are brought on or < by, Sep.
- WATER cold, longed for but patients cannot drink it, Ars.

- WATER, as soon as it becomes warm in stomach is thrown up, Phos.
  - sight of causes vomiting, Phos.
  - the stomach does not tolerate, because it cannot assimilate cold, Ars.
- WEAK, so, drops into a chair instead of sitting down, Stan.
- WEAKLY, timid, retiring, Cal.
  - scrofulous, with sallow, chalky complexion, Caust.
- WEAKNESS and prostration, Phos.
  - and emptiness in pit of stomach, at 10 A. M. Phos.
  - and prostration generally, Kreos.
  - cause, without any apparent, Psor.
  - fluids, from loss of, Psor.
  - great, when no organic lesion can be detected, Psor.
  - joints of the body as if they would not hold together, of all the, Psor.
  - obliges patient to lie down, though always better when walking slowly about, Fer.
  - of chest, cannot bear to talk, Dig.
  - remaining after acute disease, Psor.
  - < in morning, Lach.
  - the weaker the mind becomes, the more marked is the sexual excitement, Phos.
  - would constantly sink down with, Lach.
- WEATHER, change of, great sensitiveness to, Cal., Phos.
  - cold, bronchial, catarrhal, rheumatic complaints, incident to, Cal. p.
  - cold, damp, affections brought on or < by, Bry., Dul.
  - cold, damp, sudden changes occurring in hot, Dul.
  - coldness < in cold wet, Elaps.
  - is easily affected by stormy, Psor.
  - must be wrapped up to face even in hot, Hep., Psor.
  - wears a fur cap, overcoat or shawl, even in hottest summer, Psor.
  - worse in cold, damp, Aran.

WEEP, inclined to, music and like emotional causes impel him to, Kreos., Nat. s.

WEEPING, almost impossible to detail her ailments without, Puls.

WEEPS all day, cannot calm herself, < from 4 to 8 P. M., Lyc.

WILDNESS and extreme irritability, with melancholy, Nat. s.

WIND, dry, cold, west or northwest, cough or croup from exposure to, Hep.

warm, moist, south, oversensitiveness, < in, Ipec.

WINTER, cough returns every, Psor.

WOMEN and children, for the diseases of, Puls.

especially widows, for, Apis.

WORK, when once warmed up to it, gets on very well, Sil.

WORMS, but indicated remedy fails to relieve, Sulph.

YAWNING, continued, with respiratory affections, Brom.

## AGGRAVATION.

ACIDS, from the use of, Sep.
AFTERNOON and evening, in, Puls., Sep.
 from 4 to 8, Lyc.
AIR, in cold, Alum., Ars. i., Brom., Caust., Con., Kali c.
 cold, damp, Cal., Dul., Kali b.
 draughts of, Acon., Bell., Cal., Cinch.
 draughts of cold, Caust., Cinch.
 going from cold into warm room, Bry., Caust.
 open, is intolerable, Phos.
 cold, dry, open, Carbo an.
 current, < from least, Mer.
 going from warm into cold, Con., Phos.
ALCOHOLIC drinks, acid drinks, cinchona, mercury, Lach.
ALONE, when, Phos.
ALTERNATE days, on, Cinch., Lyc.
ASCENDING, from, Ars. i., Bor., Cal., Spong.
ATMOSPHERE, damp, at lake or seaside, in, Nat. s.
AUTUMN, in warm days and cool damp nights, Mer.
BATHING, from, Ant. c., Caust.
BED, by heat of, but relieved by rest in, Mer.
 becoming warm in, Nat. m.
 itching < when warm in, Mer., Psor., Sulph.
 rising up in, Con.
CELLARS, cold damp < or bring on asthmatic affections, Aran., Ars., Ars. i.
 working in damp, cold, Ars. i., Dul.
COITION, after, Kali c.
COLD, from, Ars., Sil.
 on becoming, Caust., Kali c.
COOL AIR, especially in evening, Mer.

COUGH < 10 to 12 A. M., Bell.
DAMP rooms or basements, living in, Aran., Ars. i., Nat. s.
DAMPNESS, exposure to, Cal. p., Dul., Mer.
DANCING, Bor.
DOORS, out of, Alum, Kali c.
DOWNWARD motion, Bor.
DRAUGHT, by sitting in a, Acon.
DRINKING, from, Bell., Dros., Nat. m., Phos., Psor.
DRINKS, cold from, Ars., Dig., Sil., Spong.
EATING, Kali b., Kali c., Phos.
    food, after, especially warm, Kali c.
    or drinking cold things, after, Lyc.
EVENING, before midnight, Acon., Bry., Dul., Phos., Psor., Puls.
    and at night, especially after part of night, Nit. ac.
EXCITEMENT, from, every, Spong.
    mental, Cal., Cal. p.
EXERTION, physical, Ars., Ars. i., Bry., Kali c.
    mental or physical, as walking, talking, writing, Cal. Nat. m.
EXHALING, Kreos.
EXPOSURE, rheumatic, of any kind, Acon.
FASTING, before eating, Iod.
FOOD, acid, Nat. m.
    cold, Ars., Puls.
    salty, sour, or spiced, Bor., Lyc.
    warm, Bry.
HEAD, low, lying with the, Ars.
HEAT, bed, warmth of, becomes intolerable on account of burning of limbs, must throw off bed clothes, Led.
    of summer or autumn, protracted, sultry, Carbo v.
HEATED, becoming, Dig.
INSPIRATION, deep, Bor., Nat. m.
LABOR, manual, Nat. m.
LARYNX, soreness of, by touch or pressure, Bap.
LAUGHING, Dros., Phos., Stan.

LIGHT and odors, from, Phos.

LYING down, Ars. i., Con., Dig., Dros., Hyos., Nat. m., Nit. ac., Puls., Sil.
  on side or turning in bed, Kreos.
    back, cannot sleep from difficult breathing, Acet. ac.
    either side, Acon., Kreos.
    either side, but especially on painful, Kali c.
    l. or painless side, Puls.
    l. side or back, Phos., Sep.
    right side, Ars., Ars. i., Mer., Stan.
    the affected, especially r. side, Ars.
    the painful side, Bor., Iod., Hep., Kali b., Kali c.
    with head low, Ars., Ars. i., Spong.

MENSES, during, Carbo an., Puls., Coc., Sil.

MENSTRUATION, before and during, Kali c.

MERCURY, from abuse of, Nit. ac.

MIDNIGHT, after, Acon., Ars., Cal., Carbo an., Dros., Fer., Kali c., Sulph.
  from 2 to 4 a. m., Kali c.
  or toward morning, Dig.
  or just before cough < at, Bell.

MILK, from, Nit. ac.
  or fruit, from, Cinch.

MORNING, Acal., Bry., Cal., Carbo v.
  and evening, Kreos.
  from 2 to 5 a. m., Kali i.
  early, can't walk without great suffering, Caust.
  2 to 3 a. m., tough mucus strangles him, Kali i.

MOISTENING diseased parts, from, Lyc.

MOON new or full, skin symptoms, worse at, Alum.
  during new, Sil.

MOTION, by, Bad., Bap., Bor., Bry., Cal., Cal. p., Kreos., Nat. m., Sil.

MOVE, on beginning to, Fer.

MOUNTAINS, climbing, Ars., Ars. i., Cal.

MUSIC, Kreos., Nat. s.

NIGHT, at, Ars. i., Bell., Brom., Cinch., Con., Mer.

NIGHTS, during hot days with cool, Acon.

OBJECTS, bright, shining, looking at, Bell.

OYSTERS, from, Lyc.

PAINS, from thinking of, Bap., Bar. c., Ox. ac., Oxyt., Helon.
  in limbs and bones are worse every evening and become intolerable at night, Kali i.

PERSPIRATION, from suppressed, Acon.

PERSPIRING, Mer.

POLLUTIONS, after involuntary, Kali c.

PRESSURE, by, Bell., Bap., Brom., Lach., Sep.
  < soreness of larynx, Bap.

QUININE, abuse of, Carbo v., Fer., Puls.

READING, speaking, talking, Dros., Nat. m., Phos., Psor., Sil., Stan.

REST, during, Dul., Fer., Sep., Sulph.

ROOM, on coming from open air into a warm, Acon., Puls.
  close air of, Nat. m., Puls.

ROOMS, closed, warm, are intolerable, Apis.

SEA SHORE, or sea air at the, Nat. m.

SEXUAL excesses, Cinch., Con., Fer., Phos., Sep.

SHAVING, after, Carbo an.

SINGING, Ars. i., Dros., Phos., Stan.

SIT UP, gets faint or sick, cannot, Bry.

SITTING, while, Alum., Psor.

SLEEPING, after, Apis., Hep., Nit. ac., Lach.

SMOKE, dust, Brom.
  tobacco, Acon.

SMOKING, tobacco, Lyc., Spong.

SNOW, melting, Cal. p.

STAIRS, going up, Ars. i., Cal., Spong.

STANDING, while, Sulph.

STOOPING, while, Alum., Lyc.
  or lying on left side, Lyc.

STRETCHING affected limbs, on, Sulph.
  arms out, from, Lyc., Psor.

SWALLOWING, empty, Nat. m.
  especially solid food, Hep.
SWEETS, Caust., Spong.
SUN or stove, heat of, Lach., Nat. m.
  the hot, Bell.
SYMPTOMS of Arn., Bell., Lach., < by Acet. ac.
  < before midnight, are > after, Brom., Puls.
TEMPERATURE, changes of, Nit. ac.
  changes in, especially extremes of, Lach.
THUNDER-STORM, before and during a, Phos., Psor., Sep.
TOUCH, Bap., Bell., Bor., Brom., Bry., Cal., Carbo an., Cinch., Hep., Lach.
TWILIGHT, in, Puls.
UNCOVERING, by, Acon., Bell., Hep., Mer., Sil., Psor.
  the head, Acon., Bell., Rhus.
  cold air coming in contact with exposed parts. Mer.
  especially the head, Sil.
UNDRESSING, while, Hep., Kali b.
WAKING, mental symptoms worse in morning on, Alum., Lach.
WASHING, bathing, Sulph.
WALKING, from, Brom., Caust.
  eating, rising from a seat, while, Lach., Nit. ac.
WARM room, Apis., Dig., Puls., Spong.
    or warm wind, Lyc.
  drinking anything, Stan.
WARMTH in general, Apis., Bry., Dig., Dros., Lyc., Puls., Spong., Iod., Stan., Sulph.
  of bed, Mer., Sulph.
WET, getting the feet, Acon., Puls., Rhus.
WINDS, raw, damp, from, Cal.
  dry, east, Acon., Cal. p., Sep.
  riding against, Acon., Bry., Hep.
  south or south-west, Carbo v., Euph., Ipec.
  west or north-west, dry, cold, Acon., Bry., Hep., Spong.
WRAPPING up the head, cannot bear a hat on, Iod.

## AMELIORATION.

ACTIVE motion, during work, Mer.
AIR, cold, Carbo v., Led.
  if cool, in open, Phos.
  in dry, Cal.
  in open, Acon., Apis., Kreos., Kali c., Nat. m., Puls.
  mountain, Nat. m.
  open, irresistable desire for, Kali i.
  warm, Kali c., Dul.
ATTACK, feels > before, Psor.
ATMOSPHERE, dry, clear, whether hot or cold, Nat. s.
  warm, dry, summer, Cal. p.
BACK, lying on, Acon., Bor.
BATHING, cold, Apis., Nat. m.
BED, sitting up in or lying with head elevated, Ars., Ars. i., Spong.
BELLY, sleeps better lying on, Acet. ac.
BREAKFAST, after, Cal., Kali c.
COLD in general, from, Iod., Puls.
  eating or drinking cold things, Bry.
  cold water, sitting with hands or feet in, Led.
  on becoming, Lyc.
  things, from, Puls., Sec., Verat.
  food or drinks, from, Phos.
  water, by a swallow of, Caust.
  water, washing chest with, Bor.
CONSTIPATED, feels better when, Cal.
COUGHING or hawking up mucus hoarseness momentarily, from, Stan.
DARK in the, Con., Phos.
DESCENDNG on, Spong.

DRAWING up the limbs, Sulph.
ERUCTATIONS, Carbo v., Kali c., Nit. ac.
EXERCISE, violent, Sep.
EATING, after, especially a full meal, Iod.
FANNED, from being, Bap., Carbo v., Cinch.
FASTING, Nat. m.
HEAT, > all symptoms except gastric, Sil.
HOT applications, Ars., Sep.
  drinks and food > cough, Sil.
LYING down, Cal. p., Kali b., Psor., Spong.
  on the painful side, Cal., Bry., Ign., Puls.
  on back, or sitting up, Lyc.
    r. side, Bry., Nat. m., Sulph.
PORK, butter, fat, Carbo v., Fer.
MESMERIZING, by, Phos.
MOTION, Brom., Dul., Rhus.
MOVING about when out of doors, Lach.
  affected part, Fer.
PERSPIRATION, from, Acon.
  > all the symptoms, Psor.
PRESSURE, Bor., Kali b., Kreos., Nat. s., Sep.
  holding painful side with hand, Bor., Nat. s.
  of hand relieves pain in chest and sternum, Kreos., Sep.
REST, while at, Acon., Bell., Bry., Cinch.
  in bed, Mer.
RIDING in a carriage, Nit. ac.
RUBBING, Phos.
SALIVATION, profuse, Mer.
SITTING up, Bry., Lach., Nat. m.
  upright, or bent forward, and throwing head back, by Lach.
SLEEP, after, Phos.
SHAVING, after, Brom.
STANDING erect, Alum.
UNCOVERING, Apis, Lyc., Sec.

UNCOVERING the head, Iod.
WALKING, when, Alum., Con.
  slowly about, Fer.
WARM, on becoming, Kali c.
  food and drinks, Lyc.
  in bed, after getting, Kali b.
  room or covering up, Bad., Bell., Psor.
  things, eating or drinking, Spong.
WARMTH, in general, Alum., Ars., Bad., Bell., Carbo an., Caust., Dul., Hep., Kali b., Kali c., Lyc., Psor., Sil., Spong.
  especially wrapping up the head, Hep., Psor,, Sil.
  from, except headache, which is > by cold bathing or cold air, Ars.
WATERY phlegm, expectorating, relieves asthma.
WINE, from, Acon.
WEATHER, in dry warm, Alum., Cal., Dul., Sulph.
  eruptions are > in cold, Kali b.
  in wet, damp, Caust., Hep.

## LARYNX AND TRACHEA.

AIR, sensitive to inspired, as if mucous membrane were divested of its coating, Acon.
    feeling as though he cannot inspire enough, when going from the open air into a warm room, Bry.
APHONIA, complete, Alum., Ars., Bell., Brom., Caust., Elaps., Fer., Kali c., Mer., Phos., Puls., Sulph.
    almost complete in the morning > by slight expectoration, Brom.
    cold, from driving in, Caust.
    coming and going, Lac. c., Puls.
    confused sounds uttered with pain, Bell.
    foreign body in larynx, sensation of, which he attempts to remove by hawking or coughing, Fer.
    muscles of larynx refuse to act, Caust.
    loud talking, from prolonged, Phos.
    loud word, unable to speak a, Puls.
    morning, worse in damp, cool weather, Carbo v.
    nervous, returns at every emotion, Puls.
    painless, whisper, can talk only in a, Fer.
    roughness of the throat, with, Puls.
    singing, from over, Arum., Caust.
    squeezed, sensation external as if throat were, Fer.
    straining the voice before recovering from a previous attack, from Mer.
    sudden, partial or complete loss of voice, Acon., Caust.
    talking, burning sensation after, Fer.
    tickling in larynx, producing violent attack of cough loses breath, blood mounts to head, lachrymation, falls down exhausted, Fer.
    voice hoarse rough, nasal., Kali i.

APHONIA, voice fails or becomes a squeak when he tries to raise it, Caust.
        hoarse, shrill, varying in tone < talking, Alumen.
        feeble, husky, speaks in a piping, Bell.
        straining the, from, Caust.
        weak, with a sensation of general prostration and weakness, Sang.
    weakness of organs of speech and chest, cannot speak aloud, Hep.
    weak voice suddenly becomes loud and clear, while speaking, the, Bell.
    weather, in hot damp, Bell.
    with great prostration, Phos.
        violent sneezing, Kali c.
        mucus in trachea and bronchi, Sulph.
    whisper, spoke in a, every attempt to speak audibly sent blood to face and tears to eyes, Mer.

BRONCHITIS in children, from cold or damp air, with offensive night sweats, Dul.

BURNING in larynx and back part of tongue, Cal. p.
    scraping constriction of larynx, Spong.
    sensation in throat, larynx, trachea and bronchi, severe, Bor.
    rawness and tickling in larynx, Mer.

CATARRH, chronic, laryngeal or bronchial, with hoarseness, < on approach of warm weather, Kreos.
    sudden, threatening suffocation at night, Ars.

CHOKING, on lying down, Kali b.
    and gagging unto vomiting, < in morning, Kal c.
    awakens with, can scarcely breathe, Kali i.

CLERGYMAN'S sore throat, Alum., Arum, Kali b., Lyc.

COLD AIR, > inspiring, Sang.

COLD SENSATION in larynx, Brom., Rhus., Sulph.
        in larynx, with cold feeling when inspiring after breakfast, Brom.

CONTRACTION of larynx, sensation of, Spong.

CONSTRICTION of larynx, when talking, Dros.

dryness, stinging and great rawness in throat, especially pharynx and larynx, chills and rigors, Lach.

in the throat, sensation, as if something prevented speaking, Puls.

CONSTRICTIVE pain in larynx, Caust.

CORYZA, lasting a long time after an attack of, Mang.

redness about nose and upper lip, Cepa., Mer.

CRAWLING in larynx which provokes hacking cough, Dros.

sensation in lower part of larynx, trachea or upper bronchi towards evening, provoking cough, Kreos.

CROUP, cough loose in daytime, suffocative paroxysms at night, Lyc.

cough, with deep, rough, barking, Hep.

diphtheria, impending during, Lach.

entire face or only left cheek, bright red, Acet. ac.

exposure to dry, cold wind, cold air, after, Hep.

habitual, in scrofulous teething children, Cal.

head thrown back, child lies with, Hep.

hoarseness or complete aphonia, Hep.

last stages, in, when vital forces are exhausted, rapid sinking, cold sweats, dropped jaw and rattling breathing, Phos.

membranous, with hissing respiration, Acet. ac.

midnight, < just before or towards morning, Hep.

prophylactic, as a, to prevent frequent relapses, Phos.

sleeps into attack, seemingly, or < after sleep, Lach.

symptoms simulating membranous, caused by suppressed or non-appearing eruption, Ars.

suffocating, awakens, grasps throat, Lach.

whistling breathing, with loud, Hep.

worse at night, very restless, Ars.

DEAFNESS, eustachean, Mang.

DOORS and windows opened, wants the, Carbo v.

DOWN in larynx, sensation of, Hep.

- DRYNESS in larynx and air passages, Caust.
    - chronic, of the throat, with redness, soreness and swelling, Sang.
    - drawing, tickling in larynx, burning when swallowing, Sulph.
    - in bronchi in morning, Kali c.
    - of larynx, with burning, Ars.
- DRY spot in larynx, where there is a crawling, with almost constant irritation to a dry cough, Con.
- DUST in larynx, trachea, lungs, sensation of, Ars., Cal.
    - sensation as if one were inhaling, Ars.
- EMPTY feeling in chest, Stan.
- EPIGLOTTIS in constant motion to and fro, constant inclination to cough, Dros.
- ERUPTION, suppressed or non-appearing causing symptoms of membranous croup, Ars., Caust.
    - suppressed, hoarse after, Dul.
- EXPULSIVE coughs, a few, > for a moment, Stan.
- FAUCES, rough, dry, scraping sensation deep in, Dros.
- FEATHER in larynx, exciting cough, sensation of, Dros.
- FEATHER-DOWN in larynx, trachea, lungs, sensation of, Cal.
- FISHBONE in throat as soon as he catches cold, with hawking and scraping, sensation of, Kali c.
- GAGGING and choking unto vomiting, especially in the morning, Kali c.
- GLOTTIS, spasm of, Ars., Bell., Kali i.
- HAIR across base of tongue, which neither hawking, swallowing, nor eating relieves, Kali c.
- HOARSENESS, air, in damp evening, Carbo v.
        - open, especially in, Bry.
    - and rawness in morning after rising, Carbo an.
    - attacks, in sudden, Bell.
    - cannot speak aloud, Carbo v., Caust., Phos., Sep.
    - ceasing in morning after sneezing, Kreos.
    - cough and rawness of larynx, trachea, with, Phos.
    - from tickling in throat, with, Sep.

HOARSENESS, cough, with nightly, Cal.
crying, especially when, Bell.
deep and husky both in talking and singing, Cinch.
disappearing while walking in the open air, Alum.
dry, rough, barking cough, Brom.
  the larynx and trachea becomes, Cal., Lyc., Sep.
dryness, burning of throat and larynx, no thirst, Apis.
evenings, with roughness and dryness of throat, Alum,
  nose-bleed at night, with, Carbo v.
  voice scarcely audible in, Brom., Carbo v., Hep.
following croup, bronchitis or measles, Carbo v.
hawk and hem, can scarcely speak without, Cal. p.
  copious thick blue mucus in morning, Kali b.
hollow and hoarse from accumulated mucus, Cinch.
hyoid bone, painful soreness in region of, Brom.
lasts all day, constant hemming and hawking, tough mucus is thrown off, Iod.
lifting a heavy weight, with pain in larynx, when, Sil.
measles as a sequel of, Bry., Dros.
morning, in the, Acon., Alum., Apis., Cal., Dig., Iod., Kali b., Nat. m., Nit.. ac., Phos., Sil.
of public speakers and singers from over use of vocal organs, Arn., Arum., Cal., Caust., Graph., Fer. p.
often gets worse toward night, Phos.
overheating, from, Brom.
rawness, burning and soreness in chest, Caust.
  dryness in larynx and trachea, Lach.
remaining after croup, Lyc.
roughness in larynx, with deep, rough voice, which failed on exerting it, Carbo v.
roughness and constriction of larynx, Mang.
    soreness in larynx, with, Sil.
scratching and stinging in, with, Nit. ac.
singers with, Ars. i., Arum., Bry.
snoring inhalation with, Brom.
soreness, tightness, and constriction about larynx, Iod.

HOARSENNSS, swallow often to > the dryness and cough, must, Bell.
  swallowing, pain in larynx, when, Bell.
  sweat, with inclination to, Bry.
  talking, mucus adheres to larynx when, Psor.
  throat with severe burning in, Cal,
  voice, cracked, hollow, gives out, when singing or talking, Spong.
    emptiness in chest on beginning to speak or sing, was constantly compelled to stop and take a deep breath, Stan.
    night, loss of during, Carbo an.
    rough as from phlegm, Mang.
    rough, with painful dryness of larynx, Bell.
    weakness of muscles of larynx, sense of utter, Caust.
  weather, in warm wet, Carbo v.
  with accumulation of mucus, Nat. m., Kali b.
  with tickling in larynx, Iod.
  with pain on both sides of larynx > right, Nat. m.
  with roughness in throat, Hep.
  worse in morning, with constant scraping and desire to clear the throat, Caust.

IRRITATION, in trachea, producing dry, fatiguing cough, worse at night, not affected by position, Acal.

LARYNGITIS, hoarseness remaining after acute, Caust.

LARYNX, bending head backward, painful from, Lach.
  becomes raw and sore from clearing the throat so often in the evening, Carbo v.
  constant tillitation in the, inducing cough even when not inspiring, Ars.
  constricted, with great dryness as if, Bell.
  dry cough, < after speaking, Mang.
  dryness, scraping, tickling in, Bad., Bell., Carbo v.
  lined with fur, feels as if, Phos.
  lump, small, in pit of throat, sensation like, feels as if it might loosen, but does not, Lach.

**Larynx**, lump in throat, sensation of, Acon., Kali c.
    upper part of trachea, in, Kali b.
  something runs from neck to, stops breathing, awakens him at night, sensation as if, Lach.
  raw, rough, as if lined with mucus, Cal.
  mucus in, either hard or soft, Dros.
    and trachea full of, Dul.
    bloody from, sometimes hawking, Kreos.
    in larynx, secretion of, causes cough, Kreos.
    much clear, albuminous, is brought up, Alumen.
    transparent, accumulation of in morning, Nat. m.
    tough, in the trachea, loosened only after frequent hawking, Bry.
    thick, dropping from posterior nares, Acon., Hydr., Sep., Spig.
  necrosis of laryngeal cartilage, Cal.
  pain in, with desire to cough, and discharge of hardened mucus, Iod.
    raw in coryza, as if from ulceration, Kali i.
  pimples whitish, extending into, with severe pain on swallowing, the entire fauces studded with, Bor.
  plug in, sensation of, Spong.
  pressure, painful, mingled with stitches in region of sub-lingual glands, Iod.
  rattling in, during breathing and coughing, Brom.
  raw feeling in throat, larynx and trachea, Acon.
  rawness in, on awaking, Alum.
  skin, sensation as from, in, Lach.
  sore, raw sensation in damp, changeable weather, in, Ars. i., Brom.
  smoke, sensation as if l. were full of, Brom.
  suffocation, in sudden attacks of croup-like spasms, with threatening, Bell.
  sulphur, smoky sensation in l. as of vapor of, Ars.
  swollen, raw, sore, scraping, < pressing it, is obliged to swallow, Lach.

LARYNX, talons striking in, sensation as from, < from, Lach.
  tearing in, in evening, extends to chest, excites, Bor.
  tickling in, with dry, hacking cough, Bry.
  tingling, and ulcerative pain in, Carbo v.
  touch, sensitive to, Apis, Con., Hep., Lach., Phos.
    sore to, Caust.
RETCHING and vomiting, from efforts to clear the larynx or detach the mucus, Kali c.
ROUGHNESS, scraping, scratching in larynx as if from dust Alumen.
  in larynx, sensation of, Fer.
  soreness of throat and larynx, Sep.
SCRAPING and hawking, constant, to remove mucus which collects in fauces, Kali c.
  dry, parched sensation in, Kali c.
  frequent cough completely dry, Nat. s.
  in throat causing rough barking cough, Hep.
  irritation in trachea and bifurcation of bronchi causing dry cough, Bry.
  with irritation to cough, and dry cough in evening, Con.
SMALL SPOT in larynx, pain in, worse from pressure, speaking, breathing, coughing, Hep.
SNEEZING, the laryngeal irritation causes, Carbo v.
SORENESS and sensation of dryness in, Nat. m.
SPLINTER in throat, feeling of, Acon., Nit. ac.
STICKING pains in region of larynx, Nit. ac.
STITCHES with sore and raw sensation in larynx and trachea, Cinch.
  dull on both sides of larynx, extending to ear on swallowing, Mang.
STOPPAGE in trachea, sensation of, Spong.
SUFFOCATES him, every drop, of liquid on the tongue, Apis.
SUFFOCATION and crawling sensation in larynx producing a paroxysmal, dry, hacking cough, Psor.
  from mucus in larynx, fears, Brom.

SUPPORT the larynx on coughing or swallowing, patients involuntarily, Cepa., Dros.

TALK, cannot, larynx is painful, Phos.

TALKING is very fatiguing, Psor.
  hurts, larynx so painful, must cease, Spong.
  must hawk and hem to clear the voice, when, Cal. p.
  or speaking debilitates, Cal.
  reading aloud, public speaking, causes a weak, exhausted empty, "given out" sensation and produces hoarseness, Stan.

TICKLING and scraping in larynx, violent, causing dry cough, and bring tears to eyes, Puls.
  in larynx provokes hacking, constant, Acon. Dros.

THROAT, copious, thick tenacious mucus in evening and morning, Acon.
  and posterior nares, rawness in, compelling him to clear the throat frequently, Acon.
  burning, scraping. dryness and constriction in, causing constant hawking and spitting, Acon.

THYROID cartilage painful to touch, Alum.
  cartilage severe pain in region of, as if ulcerated, when coughing, Carbo v.

TRACHEA, rough feeling in, obliging hawking, Kali i.
  scraping and ringing in, Kreos.
  scratching in, with pressure in chest and cough, Bor.
  so dry, it seems as if it would crack, Sang.

VAPOR in the trachea, sensation of, Bry.

VOICE, using the, produces weakness in the arms, between elbows and shoulders, which gradually extends over the whole body, Stan.
  bass, only able to speak in a, Dros.
  deep, becoming continually deeper, Iod.
    husky, hollow, Stan.
  faint weak, from ill effects of speaking, Nat. m.
  hoarse, deep, requires exertion to speak, Dros.
    weak, almost extinct, Fer.

Voice, hoarse and screeching, rarely failing, Dig.
  hollow without resonance, Dros.
  in morning > by hawking, Cal.
    with scraping in alrynx, Nat. m.
  nasal, or raised < in open air, Bry.
    broken, jerky, uncertain, Iod., Kali b.
  rough, hoarse, deep, Alum., Ars., Brom., Bry., Cal., Iod., Kali b., Kreos., Mer., Nat. m., Stan., Sulph.
  toneless, cracked, weak, Dros., Hep.
  uncertain, now strong, now weak, Ars.
  waking, husky on, Alum.
  weak and soft, scraped sensation in throat, Brom.
  whistling in larynx after lying down evenings, Cal.
  whisper, descending into a fatiguing, Iod.

## RESPIRATION.

AIR in chest, sensation as if there was no, Kali c.
  must open window and get his face to fresh, Bap., Carbo v., Sulph.
ANXIOUS sensation in chest in evening in bed, Bell., Bor., Bry, Fer., Hep., Mer., Nat. m., Phos.
ASTHMA, after eating, continual pressure, tension, and fullness in stomach, Kali c.
  arsenic, from fumes of, Mer.
  at night, paroxysms return every two or three hours, or alternate with nightly diarrhœa, Kali c.
  at 3 A. M. followed by frothy, foul sputa, Cinch.
  attacks gradually increasing and decreasing in intensity, Stan.
  awakening < on, Lach.
  bed, must spring out of, Ars.
  brought on by odor of flowers, freshly cut grass, dust, heat of sun or stove, can go about only after sundown and on cloudy days (hay fever), Psor.
  catarrhal, every morning from ten to eleven, Fer.
  children, after a suppressed rash, of, Puls.
  cold, with every fresh, Nat. s.
  cough with profuse, purulent, sputa, Sil.
  covering of mouth or nose < from, Lach.
  damp weather, with every change to, Nat. s.
  diarrhœa, nightly, alternates with paroxysms of, Kali c.
  difficult, slow breathing, with, Fer.
  eating, talking or sleeping, < after, Lach.
  eruption, from suppressed, Dul.
  evening, in, especially after a meal, Puls.
  from 2 to 4 a. m., in terrible attacks, Kali c.
    4 to 5 A. M., symptoms of cold precede, Stan.

Asthma, from taking cold, cannot lie down, Spong.
  head back, must sit up and bend, Hep.
  hereditary, in growing youth of a deep-seated sycotic nature, Nat. s.
  humid, loose, rattling cough, copious sputa, Dul.
  humid, especially of children, Nat. s.
  in growing youth, rheumatic pains in chest, Kali i.
  in morning when waking, Con., Lach.
  liquid food, small quantities fill to repletion, Kali c.
  lying down, < when, Sil.
  menses after, Lach., Nat. s., Spong.
    suppressed, with, Puls.
  midnight < after, Ars., Fer.
  moving the arms, < on, Lach.
  mucus, when chest is filled up with, Nat. s.
    as if larynx were filled with, towards evening or on waking from sleep at night, Cinch.
  must lean forward with head on knees, Ars., Kali c.
  organic heart disease < from, Lach.
  of old people, with tickling cough, Con.
  particularly when talking with contraction of throat with every word uttered, Dros.
  pressure, tension, fullness in stomach after eating, Kali c.
  rattling, great, and expectoration of large quantities of white mucus, Nat. s.
  "rose cold," especially after, < from odors, Sang.
  scabies, during, if itching ceases, Lach.
  severe, looks as if dying, Cinch.
  sibilant ronchi, with Spong.
  sitting or lying down, in the evening < when, Fer.
  spasmodic contraction, sensation of, when coughing or sneezing, Mer.
  spirituous liquors < after, Lach.
  suffocative attacks in evening in bed, Fer.
  tobacco smoke < from and in cold air, Mer.

ASTHMA, touching the throat < on, Lach.
  uncover chest, must sit up and, Fer.
  walking, talking, reading or writing, > by, Fer.
  weather, worse in wet, Dul.
    autumn and wet, Cinch.
    in paroxysms the face bluish-red, in wet, Con.
  with profuse watery mucus, Nat. m.
  young people, from bronchial catarrh, in Nat. s.
ASTHMATIC paroxysms, in suffocative attacks, Bell.
AWAKENS with suffocative sensation, Lach., Spong.
BED at night, must sit up in, Ars., Brom., Fer.
BREATH, arrest of, when lying in bed, Bor.
  bad offensive smelling when coughing, Dros.
  breath, deep, frequent inclination to take a, which > Acet. ac., Bry., Mer.
  cannot take a long, from stitches in chest, Bor., Bry.
  could not get a full, Bap.
  fetid, foul, offensive, Mer., Nat. m.
  frequent desire to take a deep, Kreos.
    oppressive, in every position of body, Ars.
    short and difficult, more, Cal. p.
  gasping for, on account of constriction of larynx, Sulph.
  labored and stridulous, Sang.
  loses, on turning in bed or when going to sleep, Carbo v.
  loss of, sudden, whlie walking slowly, Nit. ac.
  loss of on lying down in the evening, Ars.
    by every motion, Sep.
  must jump up and catch for, every time he has a stitch in r. side, Bor.
  obliged to take a quick deep, every three or five minutes, followed by a stitch in r. side, Bor.
  oppression of, worse from 3 to 5 A. M., Kali c.
  oppressed and painful, Cinch.
  short, difficult, caused by weakness of the respiratory organs with great emptiness of the chest, though without dyspnœa, Stan.

BREATH, short on walking or going up stairs, Mer.
    and chest tired on waking, when walking, Carbo v.
    cannot get it completely, Kreos.
    with cold hands and feet, Carbo v.
    < by riding, lying down and light exercise, Psor.
  shortness of on bending arms, during sleep, in children, from every exertion, Lyc.
      on going up the slighest ascent, Cal.
      with constriction of chest, Con.
  shortness of, with anxiety of chest, Carbo v.
        after ascending steps, so that he cannot speak a word, Bor.
        as if lower portion of chest were held tightly, Kreos.
        causing anxiety, Ars.
        comes in wave-like expansions, Iod.
        had to get up, fearing he would be smothered, Kali i.
        palpitation, vertigo and sensation of weakness on going up stairs, Iod.
        precedes paroxysm of cough, Caust.
        unable to sit, must walk about constantly, Ars., Carbo v., Rhus.
  walking or taking the least exercise, Con.
      palpitation, anxiety on ascending steps, Nit. ac.
      with wheezing, whistling and constriction in the trachea, Ars.

BREATHING, air, better when walking in the open, Alum.
  air, worse in open, and when exercising arms, Nat. m.
  arrest of, on falling asleep her breath left her, threatened to suffocate, started up with a scream, Sulph.
  arrested by copious, tenacious, salty mucus, Alum.
    as if chest were constricted with an iron band, Cac.
    cheeks and hands livid, Sang.
    on lying down, Bap.
    waking him at night, Kali c.

BREATHING, arrested, with mucus in chest, Sep.
        when coughing, lifting, after running, lying on the back, Sil.
        when talking or walking rapidly, Caust., Sulph.
    awakes in the morning covered with sweat and great dyspnœa lasting for hours, Sep.
        awaking with anxiety, Cal.
    awoke with great difficulty of, Bap.
        as if from pressure of hand, Fer.
        back, lying on, cannot sleep from, Acet. ac.
        from want of power in lungs, not constriction, Bap.
    catching disappears when ascending stairs, Kreos.
    ceases entirely when falling asleep, Carbo v., Grind.
    constricted by cramps as if chest were, Lyc.
    difficult as from heaviness of chest, Fer.
        labored, cannot sleep lying on the back, Acet. ac.
    fanned, wants to be, but not hard as it takes the breath, Cinch.
    fullness of chest and palpitation on slightest motion, Carbo v.
    labored, after paroxysms of cough, Kali c.
    hissing, with rattling in larynx, Acet. ac.
    liver, pain in, during, Cal.
        with pain in chest shooting to, Cal. p.
    mucus in chest, too much, with sensation of, Lyc.
    nocturnal tightness of, with heat, apprehensive anxiety restlessness, Cal.
    nose, loud, through the, Cal.
    oppressed in evening < going up stairs, Cac., Elaps.
        from fear of stitches in the chest, Bry.
        in the evening, Bap.
        relieved by throwing the shoulders back, Cal.
        short, from orgasm of blood, Fer.
        unable to take a long breath, frequent deep sighing, Acet. ac., Cal., Sil.

BREATHING oppressed, worse from deep inspiration or walking in the open air, Lyc.
  oppressive, in morning, or after eating, Carbo an.
  painful, caused by stitches in chest, compelling to sit up, Bry.
  rattling, Alum., Bell., Hep., Lyc.
  shocks, painful, in r. side of back during, Cal.
  short after coughing, always, Phos.
    when lying on the back, relieved by turning on the side, Alum.
  shortness of, < by slightest motion, Bry.
    especially in morning, Kali c.
    when walking, as if the chest were full, Sep.
  shooting in l. chest and r. temple, when, Cal. p.
  spine, pressive pain in when, Cal.
  stoppage of, walking against wind or stooping, Cal.
  suffocation, from dryness of the larynx, Kali c.
  suffocative, heavy, asthmatic, Iod.
  sulphur, as if the fumes of, had been inhaled, Brom., Phos., Puls.
  tightness of, out of breath from least exertion, Iod.
  tired, worse from getting, Alum.
  too rapid, even when at rest, Ars. i.
  uneasy, from pain across the chest, Fer.
  voice, worse from over-exerting the, Alum.
  warm room, < lying in > in open air, Apis.
  wheezing on first lying down, Ars. i.
  with sensation of tightly adhesing mucus in larynx not removed by hawking or cough, Alum.
  worse from drinking, motion, rapid walking, in the morning, Kali c.

BREATHE with head low, cannot, Cinch.
  deeply, impelled to, yet it causes fatigue in head, neck, chest, back, abdomen, Carbo v.

CHEST feels bruised, beaten, as if, Kreos.
  a stitch in r. side of, when he speaks, Bor.

CHEST, did not expand enough, sensation as if, Con.
  expands with difficulty, Lyc., Psor.
  oppressed feeling in after sunset, Nat. s.
  oppression of, with palpitation, Brom.
    from talking, Cinch.
CONSTRICTED, air passages seem, < after midnight, Ars.
CONSTRICTION impedes respiration, sensation of, Brom.
DEEP breath, desire to take a, during damp weather, Nat. s.
    constantly obliged to take a, especially while sitting, Lach.
    inclination to take a, increases constriction and causes a tearing pain in right chest, Sang.
DIFFICULT, as if a plug were sticking in the larynx and the breath could not get through on account of the constriction, Spong.
  is obliged to breathe deeply, which he cannot do on account of stitches in the chest, Bor.
  on ascending steps or from manual labor, Nat. m.
  with sensation of fullness in stomach extending up into chest, Nat. s.
  worse after midnight, Dros.
DUST in lungs, with sensation of, in afternoon and evening, Bell., Hep.
DYSPNŒA, anxious, with palpitation, Psor.
  at night with desire for open air, fear of, Dig.
  ascending steps, on, Stan.
  back, when lying on, Puls.
  bending body forward, > by, Ars., Spong.
  breathe when standing up, can only, Can, s.
  chest in lower portion of the, in morning, Puls.
  clothes were too tight, was obliged to open them in order to breathe as usual, Stan.
  compelling slow walking, with great anxiety but not restless, Carbo v.
  constricted, as if throat and chest were, Puls.
  constriction of chest, with severe, Sulph.

Dyspnœa, deep breath, on taking a, Phos.
  evening when lying down, in the, Puls., Stan., Sulph.
  from oppression of the chest, in evening when lying, < when sitting, Carbo v.
  motion, on the slightest, Stan.
  must get up to relieve, Hep., Spong.
  nausea, with transient, Phos.
  night, has to sit up to breathe at, Ars., Ars. i., Puls.
  open air, desire for, goes with head uncovered, Lyc.
  prostration, with extreme, Phos.
  pulsation all over the body, with, Kali c.
  sighing, with frequent, Caust.
  sitting or lying down, when, Caust., Sinapis.
  sponge, as if breathing through a dry, Spong.
  stairs, when going up hill or up, Ars. i., Cal.
  stitches in chest, with, Cal.
    intolerable in upper part of chest near axilla, > by pressure, Dros.
    when running or from any exertion, Bor.
  suffocating, with anxiety, Carbo an., Phos.
  tension, with, chest feels full and heavy as after a full meal, Phos.
  weakness, blood seems to rush to chest as if it would burst with sudden, Spong.
  with violent and irregular beating of the heart, Kali c.
  < sitting up to write, < the nearer the arms are brought to body, must keep arms spread wide apart, Psor.
  yawning, followed by, Sulph.

Exhalation, when talking or coughing, as if something prevented, Dros.

Exhaustion, great, after every exertion, especially of the chest, could scarcely talk, Spong.

Expiration, loud breathing during, Acon., Cal.

Hay Asthma with violent attacks of sneezing, profuse coryza and lachrymation, Psor.

INSPIRE deep enough, cannot, Brom., Bry., Kreos.

INSPIRATION, aching pain, severe, in infra-clavicular region over a small space in lungs which afterwards extended to scapula, Dros.
  abdominal muscles, tearing or stitching as of needles, in, Cal.
  back, single severe stitches in upper part of, Cal.
  constant inclination to take a deep, Bry., Hep., Kreos.
  cutting pain at last ribs from within out, Cal.
  involuntary sighing, Bry., Cal. p., Ign., Kali c.
  loud, wheezing, anxious, with violent laboring of the abdominal muscles, < on, Spong.

MUCOUS rattling in trachea, attacks of, Spong.

OPPRESSED respiration, burning raw feeling in fauces, Bor.

OPPRESSION, heat and cold, from changes of, Ars.
  midsummer, from taking cold in, Ars.
  of chest, ascending a height, going up stairs, walking fast, exercising, Cal., Puls.
  of chest, asthmatic, with frequent yawning, Bap.
  severe toward evening, Sep.
  weather, in stormy, when walking fast, Ars.

PULLED, sensation in l. hypochondrium as if something, Bor.

RATTLING in chest, < after expectoration, Sulph.

RESPIRATION, lung sore during, Bap.
  sighs, irregular, chiefly of frequent deep, Dig.
  sleep, cannot, when he goes to sleep he stops breathing, and fears to sleep again because of another attack, Lach.

SMOKE, as if air passages were full of, Brom.

SMOTHERING, soon as patient closes his eyes feels as if he was, Carbo an.

SPONGE in throat, sensation of breathing through a, Brom.

STARTS from sleep, suddenly to get breath, Spong.

STITCHES into l. chest, as with a knife, Bor.
  drawing, in r. chest, Bor., Kali c.

STINGING pressure in sternum, Bor.

SUFFOCATING attacks after nursing, crying, being lifted out of cradle, Cal. p.

SUFFOCATION, cannot lie down from a sense of, must open doors and windows to obtain air, Lach.
  desperate fits of, must sit up in bed, Lach.
  paroxysms of painless, at night in sleep, Sulph.
  periodical attacks of, Cac.
  threatened, just as falling asleep, Hep.

SUFFOCATIVE fits during an inspiration, frequent, Caust.
  oppressive, severe, from suspended respiration, Bad.
  nightly, as if lungs were paralyzed, or as if breathing through cotton.

THROAT, as if too narrow, the face hot and turgid, Sulph.
  ball in, sensation of, after sunset, Nat. s.
  contracts with every word he speaks, Dros.

TIGHT, compressed, lungs felt, Bap.

TIGHTNESS in chest as if full, not room to breathe, Cal.

TIRED sensation in chest, from rapid walking, Kali c.

VEINS of forehead and temple distended, Sulph.

WEAKNESS and tired sensation in chest, from rapid walking, Kali c.

WHEEZING, with cough and a frothy expectoration, Ars.

YAWN, frequent and fruitless attempts to, Lyc.
  child wants to and cries because he cannot, Lyc.

YAWNING, frequent, asthmatic oppression of chest, Bap.

## COUGH.

ABDOMEN, jarring of, during cough, Kreos.
ACHING pain in upper part of sternum, with, Fer.
AFTER meals with vomiting of all food taken, Fer.
AFTERNOON and evening, < during, Bad.
  fever during, Bap.
AIR, < walking in open, Dig.
  < by going into open, Fer. p.
"ALL GONE," empty feeling in chest, sensation of, Nat. s.
ATTACKS, in violent, followed by expectoration of black blood, with severe tearing pains in whole chest and especially at apex of r. lung, Elaps.
AUTUMN, coming on in, Iod.
BED, every evening after lying some time in, Kali c.
BITTER taste of solid food, not of drink, Iod.
BLOOD warm, bubbles up in chest and flows out of mouth, then coughs with more bright red sputa, Mill.
BRANDY-DRINKERS, spasmodic cough of, Fer.
BREAKFAST, < during, > after, Alumen, Kali c.
BRONCHIAL glands, from enlargement of, Con.
CHEST, burning in as from something hot, Sil.
  and sternum, with pain in, has to press hand on it, Kreos.
  creeping and tickling in the, Caust.
  mucous râles in, most marked at night, Fer. p.
  stitches and bruised pain in, during cough, Kreos.
  with soreness in, at one point, as from an ulcer, Kali b.
CHILLS and heat during cough, Kreos.
CHOKING, from mucus in the throat when, > by sitting up or moving, sensations at night as if, Carbo v.
  from sticky mucus, Kali b.

COLD, any part of body getting, from, Hep., Rhus.
  fluids, drinking <, Dig.
  open air, when going into, Ars., Hep., Con., Phos.
COLDNESS with, in the evening, Acet. ac.
CONCUSSION in head, with, Apis.
CONCUSSIVE in paroxysm of three coughs, Stan.
CONSTANT, racking, Con., Tub.
  in the evening after lying down, Puls.
  dry, hacking, the entire day, Cal.
  short, hacking, tormenting, Pinus, Fer. p.
  when child is laid down, Sep.
  with expectoration of masses of black blood, Elaps.
CONSTRICTION in larynx, sensation of, almost threatening suffocation, from touching the throat, Bell.
CONVULSIVE, can scarcely be controlled, Mer.
CORYZA, profuse, fluent, hoarseness with stitches in the throat on every paroxysm, Nit. ac.
COUGH, DURING, action of stomach reversed, Bell.
  anxiety, nausea, rattling, sneezing, vomiting, Iod.
  bleeding from nose or mouth, Bell., Dros.
  bloody taste in mouth, Bell., Kali b.
  burning pain in sternum extending to shoulders, Kali b.
    and stitches in chest, Iod.
  bursting pains in head and chest, Bry.
  catching for breath, Cal., Bry.
  chest, pain as if tearing something loose, Cal.
    and hypochondria, must support the, Dros.
      stomach, pressure in, Cal.
    brain, epigastrium, hypochondria, stitches in, Bry.
    muscles of, stitches in, Dros.
    or uterine region, stitches in, Bell.
    pain in > by pressure, Bry.
    right side of, in region of nipple, stitches in, Bor.
    smoke, as if full of, Brom.
    sore pain in, Brom.
  constriction of throat, Bell.

COUGH, DURING, convulsions, threatened, **Bell.**
  dullness and pressing headache, **Brom.**
  face blue and pale, **Dros.**
    flushed, hot, red, **Bell.**
  gagging, evening or night, Cal.
  heaviness and pains in chest, **Kali b.**
  lachrymation and contraction of eyes, **Brom.**
  mouldy taste, **Bor.**
  nausea and vomiting of food, **Bry.**
  night and day, from tickling in larynx, with red face and frontal headache, **Bell.**
  rattling in throat and chest, Cal., **Kali b.**
    in larynx, danger of suffocation from accumulated mucus, **Brom.**
  rush of blood to the chest, **Bell.**
  sneezing, lachrymation, toothache, **Bry.**
COUGHING of blood, after a fall, violent exertion, injury of lungs, Arn., Mill.
CRAMP in the chest, cannot speak on account of, **Kali c.**
CRAWLING and scraping in the throat, with, Con.
  sensation extending beneath the sternum, with, **Sang.**
CRYING, caused by, Hep.
DAYTIME without, night with expectoration, Caust.
  without, morning with expectoration, Sep.
DEBILITY, emaciation, hectic fever and complete cessation of menstrual flow, with great, Fer.
DEEP, hollow, spasmodic, from roughness and scraping in trachea, Dig.
  enough to start the mucus, sensation as if he could not, Caust.
  hollow, violent, shattering, strangling, **Stan.**
  seated affections or organic lesions, depending on, **Ars.**
  sounding, hoarse, barking, **Dros.**
DENTITION, during, Bell., Cal., Cham., Kreos.
"DOWN," tickling in larynx as if caused by, **Sulph.**
DRINKING coffee, < by, Caust.

**DRINKING**, especially after, Ars., Bry., Con., Fer., Hep., Lyc., Phos.
**DRY** at night, loose during the day, Cal.
      with dryness of throat, Alum.
      waking with acute pains in chest, Kali c.
  after dinner, Kali b., Nux v.
  a long time in the evening in bed, before sleep, Sulph.
  and painful at times, at others with purulent, slimy, salty or offensive sputa, Carbo v.
    teasing, from great dryness of throat, from 2 to 4 or 3 to 5 A. M., Kali c.
  a sequel of pertussis, Caust.
  as if coming from stomach, with a crawling and tickling at pit, Bry.
  awakening from sleep, not ceasing till he sits up in bed, and passes flatus upward and downward, Sang.
  both day and night, Sil.
  cachectic, as in old people, in the morning on rising and evening on lying down, Bor.
  caused by rawness in the larynx, Sulph.
  choking, with hoarseness and watery saliva, Sulph.
  constant, from tickling in throat-pit, Phos.
  croaking, barking, from tickling in larynx and pit of stomach, Nit. ac.
  disappears on sitting up in bed, but returns on lying down, Puls.
  especially at night, Cal.
  hacking, incessant, short, Arn., Sticta.
      short < mornings, Tub.
      nervous, rough, Hep.
  hard, exhausting, beginning at 3 A. M., and repeated every half hour, Kali c.
    troublesome at night but worse at 4 A. M., Kali c.
  hollow, from tickling in chest and upper anterior lobes of lungs, Myr.
    painful, later with bloody expectoration, Cinch.

- DRY, in early morning on rising and in evening in bed, Cal.
  - irritating, could not cough deep enough to dislodge the mucus, Caust., Pinus.
  - mid sternum, constant from irritation under, Mang.
  - morning, or worse towards morning, Iod.
    - and evening, with burning in chest, Kali c., Kali i.
  - nearly always, Acon.
  - rattling in chest, with, Nat. m.
  - ringing, spasmodic, Apis.
  - severe, shakes abdomen as if all would fall out, must support bowels, Carbo an.
  - short, violent, with stitches in chest or l. scapula, **Sulph.**
    - continual tickling and pain in larynx, as if from an ulcer, Kali b.
  - spot in larynx, from, Con.
  - stitches and burning in chest, with, Iod.
  - tickling, troublesome at night at different hours, Cal. p.
  - tobacco, pressure in throat, warm room, from, Iod.
  - tormenting, chiefly at night, raising only with great difficulty a scanty, white, frothy, gluey, or dirty-looking sputa, Cal.
  - until midnight, nausea and bitter vomiting, Sep.
  - with a taste of blood, Cinch.
    - dyspnœa and oppressive breathing, Acet. ac.
    - feeling of soreness in larynx, Kali i.
    - shortness of breath, provoked by tickling in trachea, Psor.
    - soreness in chest and rough feeling in throat, especially at night, Nat. s.
  - while in bed in evening, Stan.
- DRY HEAT, subjective at night in bed, with, Iod.
- DRYNESS in larynx, from, Bell.
  - of the throat, causing, Puls.
  - roughness and constriction, with painful, Mang.
- DUST in the larynx, sensation of, Cal.

DURING COUGH, sore pain in epigastrium and abdominal muscles, Bry.
        and rawness in the, Cal.
    pain in hepatic region, Bor., Bry.,
        inguinal hernia, Cal.
        head, sternum, pit of stomach, "seems to strike there," abdomen, hips or legs, Bell.
    palpitation or throbbing of arteries, Cal.
    sticking pain through right chest > by pressure, Bor.
    sulphur vapor in throat, sensation of, Brom.
    throat and larynx, ulcerative pain in, Kali b.
    tickling and burning in throat, Iod.
    urination, involuntary, Alum., Bry., Caust., Kreos., Nat. m., Phos., Puls., Sep., Spong.
    vomiting of sweetish matter, Cal.

EATING, drinking < from, Cal., Caust., Cinch., Bry., Dig.
    or drinking, cold food or drink, from, Carbo v., Hep.

ECZEMA, cough a few days before an erruption of, Led.

EPIGASTRIUM through to spine, pain from, Phos.
    oppression at, or every inspiration causes, Kali b.

EXANTHEMATA, after variola, measles, scarlatina, Cal.

EXCITED by nausea, creeping, tickling in stomach, Bry.

EXCRUCIATING pain and anxiety, with, Brom.

EXPECTORATE, coughs a long time before he can, Psor.
        especially in young children and old people in threatened paralysis of vagi, Dul.

EXPECTORATION, with, of tough, transparent mucus, Fer.

EXPIRATION every, ending with a hoarse hacking, Acon.

EVENING and night without, morning and day with expectoration of dark blood, Sulph.
    always < in bed, in, Carbo v., Kreos.
    at six o'clock and lasts till daylight, recurs every, Con.
    immediately on lying down, in, Dros.
    not ceasing until cough loosens so as to expectorate a little phlegm, Sep.
    or after 12 P. M. <, Cinch.

EVENING till midnight < from, Caust.
    while sitting, sudden, violent, irrepressible, Alum.
    with pains in chest and throat, Psor.
    without, in morning with copious expectoration, Fer.
FACE, redness of and perspiration over whole body, Kali c.
FATIGUING, not allowing him to speak an audible word, Mer.
    violent, every evening after lying in bed, Kali c.
FEATHER in throat, especially in morning, Iod.
FOOD or drink, least mouthful of causes, Kali b.
FOREIGN body in larynx, sensation of, Bell.
FREQUENT, dry, with raw pain in chest and smarting in larynx, Acon.
    hacking, causing soreness in chest, Sil.
        with crawling in larynx after eating, Nit. ac.
    short, suppressed, Ars. i.
    with stitch in left side of chest, short breathed if coughing when standing, Nit. ac.
FRIGHTFUL, with expectoration and spitting of blood, Stan.
FUGITIVE pains changing place every few hours or every day or two, Mer.
GAGGING, dry, with, Apis.
    and vomiting, with, Fer.
    dry, awakes with a, at 2 A. M., which causes, Kali c.
    retching and vomiting of ingesta and sour tasting mucus, Kali c.
    without nausea, with, Bry.
GAGS and vomits mucus, child coughs till breath is gone and then, Sep.
GOUT, cough a few days before an attack of, Led.
HACKING, constant, with expectoration of blood, Kali b.
    from rawness, later copious green sputum, Kali i.
    teasing, dry, with dryness in throat, Sang.
    violent cough with slight expectoration of a mouldy taste and smell, Bor.
    with blood-spitting and great prostration, Cinch.
        dryness, slight, and stoppage of nostrils, Ars. i.

HÆMOPTYSIS of bright blood, with, Mill.
  profuse without fever, Mill.
  taste of blood in mouth before, Elaps, Ham.
HAIR lying from tip of tongue to trachea, causes, Sil.
HARASSING, titillating, in children as soon as the head touches the pillow at night, not during day, Dros.
HARD SPELLS, in, not ceasing till masses of offensive sputa are expectorated, Carbo v.
HARSH, irritating, with bloody or muco-purulent sputa, Phos.
HEAD and chest would burst, as if, Mer.
HEADACHE, as if head and chest would fly to pieces, Bry.
HEART, depending on hypertrophy of, Ars.
HEATED, becoming, <, Dig.
HEAVINESS in chest, sensation of, Psor.
HECTIC, at night, dry skin, delirium, Acet. ac.
  with, emaciation, diarrhœa, night sweats and œdema of feet and legs, Acet. ac.
HEMORRHOIDS from suppressed, Mill.
HOARSE, crowing, suffocative, croup-like, Brom.
  racking, day and night, profuse purulent sputa, Ars. i.
  voice, soreness in trachea and chest after every, Stan.
HOARSENESS towards evening with a dry tickling, Caust.
  and rattling in chest, Sulph.
  retching, vomiting, epistaxis, diarrhœa, with, Mer.
HOLLOW, deep, with whitish and greenish sputa, Kali i.
  spasmodic, in short, hard attacks, Carbo v.
HORIZONTAL position, coughs when he assumes a, Pinus.
IMPROVES to a certain point and remains stationary, getting neither better nor worse, Caust.
INABILITY to lie on right side, Mer.
INCESSANT, from irritation in a place low down in chest where from coughing it pains as if sore, Sil.
INCLINED to backache, especially in the coccyx, Caust.
INCREASING soreness of chest and larynx, Bapt.
INSPIRATION during, cough has a hollow sound, Acet. ac.
INVOLUNTARY stool and urine while coughing, Phos.

IRRITATING, dry, violent, at night and followed but not relieved by hæmoptysis, Acal.
  things, salt, vinegar, mustard, pepper, &c., easily excited by, Alum.
  tormenting, gets nothing up, Kali c.
IRRITATION caused by empty swallowing, Nat. m.
  in throat, from constant, Kali i.
  of pit of stomach, from, Bry., Puls.
  to cough, comes on so suddenly and violent that he can scarcely inhale at all, Sep.
ITCHING behind sternum, low down in lungs, extends from bronchi to nasal cavity, Con., Iod.
  from throat to chest, Cac., Cal., Carbo v., Con., Iod.
  irritation in upper part of trachea, from, Arn.
LAUGHING < from, Ars., Bry., Cinch., Dros., Kali c., Lach., Nit. ac., Phos., Stan.
LARYNX and trachea, from insupportable tickling in, Arn.
  hollow, racking from tickling in, Led.
  itching in, dry, spasmodic, from, Cac.
  touching the, paroxysms when, Fer. p.
LIVER, with stitches in, Nat. m.
LOOSE, often with muco-purulent expectoration, Ars. i.
  from tickling in throat, Nat. s.
  morning, less free during the day, Sticta.
      tight afternoons and evenings, Bad.
  racking, spasmodic, Psor.
  râles, with, until something is expectorated, Carbo an.
  skin, sensation of hanging in throat, Alum.
  with copious expectoration of mucus, Dulc.
    expectoration in morning, and during the day, dry in the evening and at night, Puls.
    soreness and pressure in chest, Sulph.
LOSES breath before cough, Led.
LOSS of breath day and night, Nat. m.
    vital fluids, cough of those who suffer from, Fer.
LOUD, harsh in single coughs at different times, Kali c.

Lying down, only on, or < when, Alumen, Caust., Carbo v., Cinch., Con., Dros., Dul., Hep., Kali c.
always promptly relieved by, Mang.
becomes unbearable, when, Pinus.
worse at night and in day time when, Nit. ac.
with head low or on left side, Cinch.
Measles, during or after, Bry., Cinch., Dul.
after with bloody purulent expectoration, Mill., Dros.
Menses, suppressed in, Mill., Puls.
Midnight, or towards morning, <, Dig.
worse after, or in the morning, Dros.
Moist, barking, with sound of moisture in air passages, but no expectoration, Mer.
râles are heard, but patient can't expectorate, Nat. m.
Morning, cough excited by drinking, often > by eating, Fer.
especially with expectoration of white mucus, tough as pitch, can be drawn out into strings, Kali b.
every, a long attack of dry cough ending with the difcult raising of a little white mucus, Alum.
immediately after rising, Apis.
on rising and nearly all day, Carbo an.
at night on lying down, Ars.
waking and in evening on lying down, with expectoration of green, pus-like mucus, Psor.
with dyspnœa, > by lying down, Kali b.
toward, with tickling of larynx and bronchi, Sep.
with vomiting of tenacious mucus, Sil.
Mouldy taste in mouth every time she coughs, Led.
Mucus, accumulation of in larynx, caused by, Kali b.
of in throat, caused by, Caust.
expectoration during the day, with, Bor.
Nervous irritability, exhaustion, collapse, attending, Ars.
when any one enters the room, Phos.
Night and morning, regularly every, Ars.
at, must sit up to expectorate, Fer.

**NIGHT**, in bed, compelling one to sit up at once, Bry.
  obstinate at, from 9 P. M. to 4 A. M., Apis.
  on lying down, and in the morning on rising,—only at; or only by day, Mer.
  when warm in bed, preventing sleep, Puls.
  while asleep, with expectoration only during day, Cal.
  with adhering mucus, Caust.
  worse at, and followed but not relieved by expectoration of blood, Acal.

**PAIN** in abdomen, which he must hold, with, Con.
  acute, in l. hypochondrium, shooting upward, < lying on either side or walking, Bell.
  as if something were torn loose from larynx, with, Cal.
  base of l. lung about last ribs, purulent sputum, Nat. s.
  chest and small of back, with, Mer.
    with, and profuse, thick yellow sputa, Cal.
  frightful, throughout lungs, as if they were torn out, with constant, Elaps.
  hips, and involuntary spurting of urine, with, Caust.
  larynx and sternum, with, Cinch.
  r. hypochondrium, with, Bor., Bry., Psor.
  passing or approaching persons, upon, Carbo v.

**PAROXYSMS** in dry, constantly recurring, Elaps.
  as from taking cold, with excessive sensitiveness of nervous system as soon as the smallest portion of the body becomes cold, Hep.
  from tickling in throat, larynx or bronchi, Kali c.
    9 A. M. to 5 or 6 P. M., Mer.
  severe, short, continuous, Iod., Pinus.
  suffocation on swallowing, with sudden, Brom.

**PHLEGM**, loose, but cannot get it up, coughs, Sep.

**PIANO**, playing on the, Amb., Cal., Cham., Kreos.
    induced by, every note she struck seemed to vibrate in her larynx, Cal.

**PLEURISY** or pneumonia, when conjestion begins in opposite lung, Fer. p.

Plug which moved up and down in throat, sensation of, Cal.
  or valve, burning and tickling in larynx like a, Sil.
Press chest with hands for relief when coughing, must, Bry., Dros., Nat. s., Phos.
Presses head with hands during each attack of spasmodic cough, prostration great after, Dig.
Quinine takers, regular, spasmodic cough of, Fer.
Racking, wearing in, consumptives, Sticta.
Rawness in the larynx, dry caused by the, Bry., Sulph.
  and itching in throat-pit, Caust.
  in larynx and chest, with, Sil.
Red face, with, Bell., Bry.
Resonent, whistling, nausea and rattling in chest, Kali b.
Retching, during cough, Kreos.
  and vomiting, with, Dros.
Right side, with < by or impossibility of lying on, Mer.
Rough, dry before midnight, Nit. ac.
Roughness and crawling in throat, constant, Carbo v.
Scraping, provoked by irritation low down in the trachea, with greenish, offensive, sweetish sputa, Stan.
  and rawness in larynx, Bell., Brom.
  and tickling in the throat-pit, Caust.
Shakes the whole body, severe which, Arn., Phos.
Shattering, spasmodic, in paroxysms of two coughs, Puls.
Shooting pain in vertex, with, Alum.
Short, concussive, with itching in the larynx, Cal.
  dry, spasmodic, Bell.
  deep, unceasing, after midnight, Ars.
  seems to come from the stomach, Sep.
  hacking, from rawness in the throat, Kali i.
    in the evening after lying down, Sep.
Shortness of breath and ptyalism, with, Mer.
Sit up, as soon as it begins, must, Ars.
Skin loose, hanging in throat, sensation of, from, Acon.
Sleep in sitting position, night after night, must, Pinus.
  nor lie down, can neither, < evening and night, Sticta.

SLEEP, slight, day and night, preventing, Silph.
    at night, because of incessant, cannot, Sep.
    without waking during, Sep.
SLEEPINESS, during cough, Kreos.
SNEEZING, causes, Bad., Bry., Cepa.
    and coryza, begins every morning before getting out of bed and lasts till 9 A. M.. with, Sep.
    attacks of cough ending in, Bell.
    dry, hacking, with frequent, Alum., Sen., Squil.
SORE sensation in a streak down trachea, Caust.
SORENESS in abdomen, with, Carbo an.
    and dryness of the throat, with, Cal. p.
        roughness of larynx, Phos.
    of the chest and heat of the body when, Carbo v.
SOUNDS and feels as if everything in chest was dry, Mer., Phos.
    loose, but nothing comes up, Dros.
SPASMODIC or convulsive in morning, with retching or desire to vomit, Kreos.
    every morning when dressing < by going into open air, Fer. p.
    from tickling in larynx, Fer.
    hollow, from tickling irritation under sternum, Phos.
    occasional severe paroxysms of, ejecting viscid mucus from broncial tubes, which sometimes fly forcibly from the mouth, Bad.
    two paryoxysms in rapid succession, Mer., Sulph.
    with involuntary urination, Nat. m.
        profuse secretion of mucus in larynx and trachea, Dul.
SPUTA is loosened, ceases as soon as the, Apis.
STERNUM, pressure on, with, Apis,
STICKING in epigastrium, Phos.
    pain in r. chest and r. flank > by pressure, Bor.
    pains in the rectum while coughing, Nit. ac.
STITCHES, with pain through the head, Carbo v.

STITCHES in sides of chest, with, Bry., Cal. p., Cinch., Mer.
    over one eye, splitting headache and burning throat and larynx, Phos.
STOOPING to pick up anything, when, Caust.
STUFFING, with pain in chest, Kali b.
SUFFOCATING, can hardly get breath, Iod.
SUFFOCATIVE and choking at 5 A. M. as from dryness of larynx, Kali c.
    hoarse cough, producing shaking of the brain, as if brain were loose in the head, Carbo an., Carbo v.
SULPHUR, vapor of in larynx; smoky sensation of, Ars.
        suffocative, dry, spasmodic night, from, Cinch.
    fumes of, dry, itching, tickling, scratching in trachea and bronchi, from, Puls.
SUPRA-STERNAL fossa, from irritation in, Apis.
SWALLOWED, loosens tenacious mucus, must be, Kali c.
    tenacious mucus or pus must be, Arn., Caust., Dros., Kali s., Kali c., Sep.
SWALLOW of cold water, > from, Caust.
SWEAT after the paroxysms of cough, Brom.
SWEATS when he coughs, Pinus.
SYMPATHETIC, during pregnancy, Con.
WEAKNESS in chest, must hold chest in both hands when coughing, for support, Nat. s.
WEATHER, sudden changes from hot to cold, from, Dros.
TALKING, laughing or reading aloud, from, Acon., Alumen, Alum., Bry., Carbo v., Caust., Cinch., Con., Dig., Dros., Mang., Hep., Pinus, Phos., Sulph.
    walking, deep inspiration, < from, Mang.
TEA DRINKERS, excessive, spasmodic cough of, Fér.
TEARING-OUT pain starting from ensiform cartillage, Kali c.
    pain, with, and involuntary emission of urine, in old or withered looking people, Alum.
THREE or four coughs at a time, Bell.
THROAT, child grasps its, every time it coughs, Acon.
    constrictive feeling in, Apis.

THROAT, excited by scratching, Acon.
  scraping and scratching in during cough, Kreos.

TICKLING, back part of top of larynx in evening after lying down in bed, from, Bell.
  burning in larynx causing violent paroxysm of coughing, Bell.
  constant, at entrance of larynx, Sang.
  in right chest, or lying on right side, from, Carbo an.
    the chest, Cinch., Con., Iod.
      larynx and trachea, Acon., Alumen., Ars., Brom., Kali c., Iod., Sang., Sticta.
        as if sugar were dissolving, from, Bad.
  larynx and upper anterior walls of thorax, Mer.
    or at the bifurcation of bronchi, Kali c.
  r. side of trachea, dry, severe, caused by, Sticta.
  the stomach, in, Lach., Nat. m., Sang.
  throat, or throat pit, Acon., Apis, Bap., Brom., Con., Lach., Sang., Sil.
  throat-pit, unbearable, causing paroxysms of dry cough, Con.

TIGHTNESS or constriction across upper third of lungs themselves, Phos.

TOBACCO smoke, tea, wine, brandy, quinine, < from, Fer.

TONSILS, enlarged, or as if involuntary from habit, Cal.

TOUCH of larynx, light, <, Cinch.

TOUGH membrane, as if a, were moved about but would not loosen, Alum., Kali c.

TWO paroxysms, in, Mer., Puls.

UVULA, tickling constant from elongated, Alum., Bap., Nat. m.

VIOLIN, on playing the, Kali c.

VIOLENT headache, with, fluent coryza, evening fever, and oppression of chest, Con.
  but dry, with pain through r. chest, has to press chest with both hands for relief, Bor.
  first dry, afterward, profuse salty expectoration, Cal.

VIOLENT for years with inability to bring up the sputum, Ars i.
  hollow, racking, with sensation of soreness in chest and pain in r. chest, Caust.
  racking, tearing, worse from 2 to 5 A. M., Kali i.
  shaking, with bloody sputa mixed with clots, Nit. ac.
  shooting pain in chest preventing lying on side, Acon.
  with discharge of yellowish pus, with stitches in l. hypochondrium when breathing, Carbo v.
    painful shootings in different parts of chest, compelling to lie always on his back, Acon.
    retching and difficult expectoration of viscid mucus, Kali b.
VOMITING of food, with, Ars. i., Bry., Kali c., Nat. m.
  and retching in the evening, cough causing, Carbo v.
WAKENS from sleep at night, Sil., Sulph.
  about 10 or 11 P. M., occurs every 15 or 20 minutes, Bell.
  from sleep morning and evening, Caust.
WAKENED, < after being, Caust., Cinch., Lach.
WAKING in morning, evening on lying down, < after, Sil.
WARM, to cold places, < going from, Carbo v., Con., Phos.
WASHING chest with cold water, > by, Bor.
WEAKNESS of voice and chest, with, Stan.
  of the chest, short cough as from, Stan.
  or soreness under sternum, with, Psor.
WHEEZING, whistling, spasmodic, with rattling in the larynx, Brom., Iod., Kreos.

## CHEST AND LUNGS.

**Anxiety** and pressure of, amounting to suffocation, Phos.
**Apex** of r. lung, acute darting pain in, Ars., Bell.
**Arms**, rheumatic pains in, worse from motion, Kali c.
**Asthma**, inveterate, of old people, < early in morning, > by cold air, Carbo v.
  bed, has to get out of, and sit up for >, Ars., Carbo v.
**Back**, rheumatic pains in, < from motion, Kali c.
**Beaten**, pain in side as if, or as from a blow, Cinch.
**Blood** spitting, periodic attacks of, Kreos.
**Blunt** knife, pain at 5th and 6th ribs as if thrust in, Dul.
**Bronchi**, sensation as of hot water trickling through, Hep.
**Bruised**, cramping, constrictive sensation in chest, Fer.
**Chest**, aching and tearing in, extending to hips, Carbo v.
  and head, congestion of, with redness of face and one ear, caused by suppressed hemorrhoidal flow, Alum.
  and ribs sore, as if bruised, Carbo v.
  blood, feels as if too full of, Alum., Mel., Sang.
  burning, cramping, stitching pains in, Sang.
    and heat in, extending below diaphragm to stomach, Ars.
    as from glowing coals, Carbo v.
    cutting, oppressive pains in, Psor.
    from below up into throat, Cal. p.
    in l., Myr.; in r., Bell.
      region of heart, Kali c.
    pain, paroxysms of, Puls.
    rising to face, Sulph.
    sensation in center of, Dros., Kreos.
    soreness, rawness, heaviness in, stitches in both sides of, Spong.

- CHEST, burning, stinging, like fire from chest to shoulders, Lach.
  - with pressive pain, Carbo an.
- chilliness in, evenings, Alum., Ars.
- cold, great susceptibility to, Cal., Carbo v., Tub.
- coldness or heat in, sensation of, Apis, Sulph.
  - from front to back, sensation of, Ars., Brom., Carbo an., Sulph.
- constricted sensation of, with apprehension, Alum.
  - of, with anxiety and restlessness, evenings, Ars.
- contraction of and difficult breathing, > by lying down, Cal. p.
  - when walking fast, when going up hill, Ars.
  - with burning as if excoriated or raw, Ars.
    - oppressive anxiety at pit of stomach, Ars.
- depression of, supra-clavicular region, < r. side, Iod.
  - of infra-clavicular region, < l. side, Cal., Phos.
- empty sensation in, Phos., Sep., Stan., Tub.
- excoriated or raw sensation of, Ars.
- extremely sensitive, cannot bear auscultation or percussion, Cinch., Sulph.
- injuries, mechanical affections the result of, Arn.
- large, feels as if too full, too, Alum., Lyc.
- painfully sensitive to touch and on inspiration, the entire, Cal.
- sharp thrusts directly through the, from sternum to spine, while sitting, Con.
- sore and raw, especially infra-clavicular region, Cal.
- talking causes soreness in, Alum.
- weary on waking, feels, Carbo v.
- weakness of in attempting to move or sit up, Ars.
    - cannot talk from, Hep., Stan.
    - and exhaustion, sensation of, Brom.
- wheezing, with bruised pain between shoulders, Ars.
- yellow spots on the external, upper, Ars., San., Sep.
- CLAVICLE and l. nipple, sore below, breathing difficult, Fer.

- CLAVICULAR region, supra and infra, soreness of, Cal p.
- CONGESTION to chest < from emotion, Phos., Sep., Sulph.
  - in chest from least motion or exertion with dyspnœa, nausea, fainting and great weakness, Spong.
- CONSTRICTED feeling, unable to breath deeply on account of pain and, Bry.
- CONSTRICTION, as if stopped and could get no air, Bry.
  - ascending or walking, when, Cal. Kreos., Led.
  - sensation of, in lower part of chest, Cac.
  - spasmodic, of chest after talking, Hep.
- CUTTING cramp through left chest to scapula, pain like a, Myr., Ther., Nat. m.
- DEEP-SEATED catarrhal affection of the lungs, Dul.
- DEPRESSION, infra-clavicular, Cal., Phos.
- DRAWING beneath l. breast, sudden, on rising in bed, Stan.
  - stitching pains in r. lung, Bor.
- DRINKING cold water, pain in chest from, Carbo v.
- DULL, aching, in left chest near middle of sternum, Apis.
  - pains all over lungs as if they had been overworked,
    - with sensation of constriction of chest, Lyc.
  - in chest, with soreness to touch, Cal., p.
- FISTULÆ, anal, chest affections alternating with, Cal. p., Berb., Sil.
- FLUID, as if a hot, would come into the mouth, Acon.
- FULLNESS, constriction or suffocation in chest, Apis.
  - in chest, with anxiety, heat, palpitation, Nit. ac.
- HÆMOPTYSIS, alternating with coxalgia or rheumatism, Led.
  - blood bright red, foamy, profuse, Led.
    - light red, renewed every 4, 6, 7 or 8 hours, Cal.
    - or sulphur in mouth, with taste of, Ham.
  - bubbling in chest, preceded by sense of, Fer. p.
  - burning like fire, pain in lungs, with, Bufo.
    - pain in a fixed point in chest from which blood seems to come, Led.
  - cardiac troubles, with rattling and hissing in air passages, from, Cac., Led.

HÆMOPTYSIS, coughs pure blood, or bloody mucus, Acet. ac.
  dark venous, raised without effort, mind calm, Ham.
  effort or hawking, coming on with slight, Fer. p.
  hard body in epigastrium, sensation of, then a, Hep.
  headache, beating, preceded or accompanied with, Led.
  lie down, cannot, from dyspnœa from congestion, Ham.
  menses, after disturbed, mechanical injuries or former bleedings have weakened the lungs, Fer. p.
  midnight and in morning, at, Led.
  nausea, with, heavy oppressed breathing, livid face, small, frequent pulse, anxiety and debility, Fer. p.
  profuse, blood bright red, Fer. p.
  provoked by a dry, tickling, hacking cough, < from least exertion, Fer. p.
  stitches, severe in lower part of lungs, with, Ham.
  violent cough, tickling in larynx and trachea, with, Led.
HÆMORRHAGES, active or passive, from nose, lungs, stomach, bowels, uterus, Acet. ac.
HEAT from a fire, pain after inhalation of, Carbo v.
HEART, hypertrophy of, in young growing boys, from violent gymnastics, Brom.
    in young growing girls, Caust.
HEAVINESS and oppression of, anxious sensation of, Kreos.
  of chest, as if weight were lying on it, Mer., Phos.
HOT water in l. chest, sensation as if drops of, Hep.
ICE, lump of, sensation as of, in r. chest, Sulph.
ITCHING behind sternum, causing violent, racking, paroxysmal cough, Iod., Kali c.
  in the end of the nose is signal for cough to begin, Iod.
LANCINATING from middle of sternum to dorsal spine when sitting, going off when rising, Dul.
MUCUS, lungs were full of, sensation as if, Lyc.
OPPRESSION, as if breath could not be expelled, Dros.
  as from fullness of stomach, Cinch.
  evening when lying down, Cinch.
  in morning on waking, Nat. s.

- Oppression, must sit up when coughing or expectorating, Phos.
  - nausea, gaping, yawning, with convulsive pains in stomach after eating, Aran.
  - of, as if constricted, as if too tight, Nat. m.
  - or constriction as if clothes were too tight, Caust.
  - rawness, with sensation of internal, Lyc.
  - tearing, pressive pain with feeling of tightness under clavicles, Lyc.
  - weather, during damp, wet, Cal.
  - with constriction of œsophagus, Alum.
    - coryza, and pain in [illegible].
    - deep, difficult, respiration, Kali c.
    - distended abdomen, Kali c.
    - spasmodic pains in stomach, hypochondria, Alum.
  - < by deep inspiration, in open air, after eating, Lyc.
- Oppressive tearing pain in l. chest, Carbo v.
  - as if full of wind > by eructation, Lach.
- Pain, acute, striking through chest from r. scapula, Mer.
  - as if lower lobe of r. lung was adhering to ribs, Kali c.
  - burning, violent, in chest and stomach, < by lying on the back, Acet. ac.
  - clavicles, under r. shoulder when inhaling, Alumen.
  - contractive, band-like around the chest, Sulph.
  - constricting, spasmodic, in chest and bronchi, Spong.
  - dull, heavy across upper part of chest, Fer.
  - flying from one point to another, fugitive, Fer.
  - fly to pieces, as if chest would, Bry., Sulph.
  - in chest and stomach, violent burning, followed by coldness of skin, cold sweat on forehead, Acet. ac.
  - in l. lung, hard, heavy, constant, confined to larger bronchi, Carbo v.
  - inter-scapular, cannot take long breath, Fer., Sulph.
  - occurs in shocks or jerks, Stan.
  - overlifting, from, Arn., Mill., Rhus., Sulph.
  - r. chest, through to shoulder, in, Sang.

PAIN, r. chest, lower third of, through to back, Kali c.
r. lung, apex of, fine darting stitching from before backward, just under the clavicle, Bell.
sharp, piercing, midway between sternum and r. nipple, Iod., Sang.
sore, in upper chest on breathing, touching, or lifting anything heavy, Kali c.
upper part of r. chest, severe in, Bad.
PAINFUL side, lying upon, awakens from sleep, Bor., Kali c.
spot size of a dollar, in l. middle chest, Carbo v.
PAINS in, acute, upper l., radiating backward to point of scapula of sound side, Myr.
as if it were cut to pieces, Kali i.
at 3d l. costal cartilage where it joins the rib, Pix. l.
compel to change position, but without >, Caust.
constant, and severe in, < left side, Acal.
cutting, deep, close below clavicle, > by pressure, Dul.
dull, oppressive in l., < on inspiration, Bap.
either side where 3d rib joins its cartilage, Anisum s.
erratic, transient, fugitive, Fer., Puls.
in evening after lying down, < lying on r. side, Kali c.
lower chest, l. side, extending into gastric region, Kali c.
oppressive, violent, worse at night, Alum.
pressing, both sides of chest, < from inspiration, Con.
rheumatic, worse from motion, Bry., Kali c.
riding in carriage produces, Alum.
sharp, when taking a long breath, Bap.
sore, bruised, feeling in, Alum., Arn., Bad., Cal., Nat. m.
stitching, running upwards, Brom.
under last ribs of l. side, from below upwards, Brom.
upper middle, through to r. shoulder, < after eating or from talking, Nat. m.
PALPITATION, violent, cannot lie on r. side, Brom.
and anxiety, lying on l. side causes, Puls.
violent, with stitches in l. chest, Kali c.

PARALYSIS of lungs, threatened with, great dyspnœa and long-lasting suffocative paroxysms, Lach.

PARALYTIC drawing pain through l. chest, towards scapula and into l. arm, Brom.

PAROXYSMS from one to two hours apart, Dros.

PPESSED or screwed together, as if, Sulph.

PRESSING drawing pain across lower portion of chest, causes anxiety, Cinch.

pain in l. chest, acute, Myr.

PRESSIVE pain in, extending to back < r. side, Bell.

upper r. chest extending to r. scapula, Alumen, Carbo v.

PRESSURE, acute. sharp, aching, through apex of r. lung from before, backward beneath r. clavicle to scapula, with soreness and burning in throat, Bor.

as from violent rush of blood and palpitation, bloody sputa; sudden prostration, Cinch.

continuous, in l. chest, sensation of, Lyc.

heavy, on sternum when turning in bed, Kreos.

in whole l. side of chest, Kali c., Nit. ac.

on chest as of a heavy load, Nat. s.

on well side, cannot bear, if made toward diseased side. Puls.

pains in chest > by, Bry., Kreos., Dros.

PRESSING, pricking pains in upper part of chest, causing dyspnœa and deep breathing, Cac.

PRICKINGS, fine, going from back to chest in evening, Bor.

RALES, loud, coarse, anæmia, great debility, Cinch.

as if lungs were fūll of mucus, especially in bronchial catarrh of infants, Lyc.

RAW and sore from continual coughing, lungs feel, Nat. m.

prevents lying down at night, as if, Caust.

RAWNESS and soreness of chest, as if ulcerated, Nit. ac.

in throat when coughing, Spong.

RIGHT chest in region of 3d rib, pain extended to back between shoulders on pressure, Dul.

Rheumatism and pulmonary symptoms alternate, Led.
Sharp, lancinating, in r. chest, with soreness, < afternoon and evening, Bad.
pain in region of sixth rib, coming and going, takes away breath, < on deep inspiration, Cal. p.
as if pierced by an instrument, in upper end of sternum and clavicle, Cal. p.
through apex of l. lung to l. scapula, Kali b.
base of r. lung to r. scapula, Kali b.
Shoulders, rheumatic pains in, worse from motion, Kali c.
Soreness, dryness, constriction, burning, sensation of, extending to throat, Mer.
Sore-spots in chest, especially over apex of l. lung, Sulph.
in middle of chest, sensation of, Nit. ac., Sep.
in upper part of l. lung going through to scapula, Sulph.
chest, sub-clavicular region, apex of either lung; < when lying on that side or pressing against l. chest, Puls.
Spring and autumn, attacks of severe cough every, Kreos.
Stabbing in l. side under short ribs during inspiration, Mer.
Sternum, burning soreness or stitches in chest, under, Led.
below, with a constant dull stitch in l. shoulder, Caust.
burning in upper part of, after coughing, Fer.
and piercing soreness behind, Phos.
during inspiration and when lifting, stitches in, Caust.
from back to or from mid-sternum darting to between shoulders, Kali b.
in or under, from below up, stitches in, Ars.
l. side of upper part of, from within out, in, Nit. ac.
lower end of, soreness at, Nit. ac.
on coughing, stitches in the, Bry.
pains under or from, to l. axilla, Bell.
sore pain in, over clavicle and cervical glands, Cal. p.
as if ulcerated under, Psor.
to back or deep in chest, while walking, stitches, Kali i.

STICKING pain in l. side of chest, running upwards towards l. arm, Brom.
  pressure in l. side of chest on deep breathing, Kali c.
STINGING in l. side of chest, Kali c.

### STITCHES IN CHEST.

STITCHES, affected side, when lying on the, Cal.
  across chest, violent, passing off during motion, Dros.
  and sensation of soreness when coughing, Fer.
  anterior and upper part of chest to back, on sneezing or coughing, not breathing, Mer.
  chest extending to scrobiculus, in, Caust.
  concussive from hepatic region, Cal.
  descending deep in middle of chest, Kali c.
  from behind, forward in chest and back, Psor.
  going to back, deep in, Caust.
  in lower chest and scapula when breathing or coughing, Sep.
  in middle of, < during inspiration, Kreos.
  inspiration, deep in chest during, Caust.
  in upper part of, through to shoulders, Bry.
  nipple to umbilicus when breathing deeply, Caust.
  sharp, knife-like, to clavicle and shoulder, Stan.
  sides, on deep inspiration, and when coughing, Nat. m.
  soreness and burning pains in, Bry.
  through chest, from before backwards, Cal.
  violent in mid-sternum, extending to shoulders, Kali c.
    just above precordial region while at rest, Cinch.
  when sneezing or coughing, severe, must press chest with hands for, >, Dros.
  < during deep breathing and sudden motion, Cinch.
  < from any motion, but not > by rest, Kali c.
  < when lying, coughing, taking full breath, Bry., Puls.

### LEFT CHEST.

  abdomen to l. side of chest, from, Nat. s.
  acute, darting from left into right lung, Cal.

STITCHES, axilla knife-like, below l., Stan.
abdomen from l, side of to middle of chest when stooping, Alum.
below l. breast, severe, unable to sleep or walk on account of them, Carbo v.
chest to back and below left mamma, Nit. ac.
dull, deep in l. chest under short ribs, Kali c.
painful, from within outward under l. clavicle, > by pressure, Kali c.
extending from left side of vulva to, Alum.
fine in l. side of chest, Con.
first in left then in right, Kreos.
from left chest into throat, Cal.
scapula into chest, cutting pains, Lyc.
chest into left submaxillary gland, Cal.
knife-like in l. chest with every inhalation, Bor.
left chest on every inspiration, > by rubbing, Cal.
only during inspiration, Apis., Ars., Cal. p.
upper chest to l. scapula < breathing, yawning, coughing, quick motion, Myr.
chest over heart, Kreos.
with violent palpitation, Kali c.
side of, when breathing or lying on that side, Stan.
> by lying on right side, Phos.
extending to back, Lyc.
in morning, < breathing, Nit. ac.
middle of, when coughing or breathing, < lying down, Nit ac.
shooting, to scapula < lying on back, when moving arm, least motion, Sulph.
upper chest to shoulder joint, Nat. m.
with cough < by every inspiration, Acon.
piercing, penetrating in left side near nipple, Nat. s.
sharp from lower part of l. breast to scapula, Sang.
tearing in l. side of chest, from behind forward, Bry.
under l. mamma extending upward, Kali c.

### RIGHT CHEST.

STITCHES, abdomen to right side of chest from, Con.
  and pain in r. inguinal region, when yawning, coughing, breathing deeply, Bor.
  at night while lying on the back, Nit. ac.
  between ribs of r. side, cannot lie on it, Bor.
  darting pains through central portion of lung, Sep.
  dull pain or numbness behind 3rd or 4th rib, r. side, Cal.
  from right side of abdomen to mamma, Bell.
    r. side of chest into scapula, Sulph.
  in cartilages of l. 3d or 4th false ribs, not affecting respiration, Cinch.
    sides of chest, especially r. on inspiration, Kali c.
    region of r. nipple, every paroxysm of cough, Bor.
    r. side of chest, extending to back, Hep.
    lower half of r. lung in front, Bry.
      portion of r. lung, through to back, Kali c.
  nipple, below r. from within out, on expiration, Bry.
  pleuritic, in r. side 7th to 8th rib, < least motion, Bad.
    in r. chest, cannot move or breathe without a, Bor.
  raising the arm, sudden in r. side of chest from within outward, on, Bor.
  right side of abdomen through right lung, Bell.
  r. chest, scapula and larynx, as from a sliver, Nit. ac.
      about nipple, on every inspiration, not > by hard pressure, Con.
      between third and fourth ribs, Bry.
      dull shocks, deep in lower part of, Carbo v.
      interrupting breathing, Kreos.
      violent, evening after lying down, Nit. ac.
  r. side, through chest to or from scapula, Mer.
    to axilla, prevents bending forward and breathing, Cinch.
  sharp, burning, especially in r. lung, Carbo an.
    in r. chest, upper part, when walking rapidly, Brom.
  sharp through r. lung from nipple, Kali i.

STITCHES, shooting, r. to l. in P. M., < going down stairs, Alum.
sudden, from within outward in r. side of chest, on raising the arm, Bor.
tearing, sticking pains in r. chest, Carbo v.
upper part of, to abdomen and back, Nit. ac.

SUPRA-CLAVICULAR region, severe, sharp, lancinating pains in r., Bad.

SUPPURATION of, after hæmorrhages of pneumonia, Mer.

SWEATS profusely, especially about chest, Hep.
on the back, debilitating, night and morning, Stan.
musty, mouldy odor, of a, Stan., Sil.

SYMPATHETIC cough from induration or carcinoma of uterus, Carbo an., Con.

TENDERNESS in l. chest under third rib, with soreness, burning and smarting, < when coughing, Sang.

TENSION, sensation as from, Bap., Nat. m., Stan.
as of a hoop about the chest, Lyc., Sulph.

TIGHTNESS of the, as if bound by a hoop, Ars., Arn., Bufo., Cac., Iod., Nux m., Sil., Sulph.
and oppression of breathing going up stairs, Bor.
oppression, constriction, as if pressed inwards from both sides, Acon., Bap., Bell.
must often take a deep breath, Caust., Phos., Stan.
talking, even uttering a word, > when walking, Dros.

THROBBING ache and stitching pain in l. infra-clavicular region to scapula, < on deep inspiration, Myr.

WAVES, pain as if lung moved in, Dul.

WEAK, so, he cannot talk, Stan.

WEAKNESS of chest when talking, reading aloud, evening when lying, Sulph.
and fatigue of the chest, sensation of, Carbo v., Iod., Kali c., Nat. s., Stan.

WEIGHT on the chest and shoulders, clothes lie like a, Con.

WHISTLING and râles in chest on inspiration, Nit. ac.

YELLOW skin, conjunctivæ, general icteroid symptoms, Mer.

## EXPECTORATION.

ACID, milky, viscid, frothy, Sil.
ACRID, fatty-tasting, Caust.
    yellowish mucus at times mixed with blood, Mer.
AFTER midnight and in the morning, Led.
BALLS, emitting a carrion-like odor when crushed, Hep.
BITING, burnt taste, has a, like dregs of an old pipe, Puls.
BITTER, in the morning, Ars.
    salty, nauseous, bilious taste, Puls.
BLOOD, with taste of, Acon., Cinch.
    black, coagulated, Kreos.
    bright red, clotted, offensive, Sang.
    dark lumps in evening, Acal.
        thick, viscid or frothy, bright red, mixed with mucus and coagula, Arn.
    of, with a fatty, sweetish taste, Sulph.
    pure bright red in morning, Acal., Fer., Fer. p., Iod.
        dark, coagulated, Brom., Puls.
    streaked with or mixed with coagulated brownish, Bry.
    when coughing and hawking, Cal., Nat. m.
BLOODY or blood-streaked, Alumen, Ars., Ars. i., Brom., Bry., Cal., Con., Cinch., Fer., Kali c., Hep., Iod., Lach., Mer., Nat. m., Nit. ac., Sep.
    because of destroyed lung parenchyma, Mer.
BLOOD-STREAKED with albumen, pus globules, Kali c.
    spitting, periodical, Kreos.
BLUISH, granular, followed by attacks of dyspnœa and dry cough, Brom.
BOILED starch, like, Cac., Dig.
BREATH, and taste occasionally fetid or putrid, Sep.
    sputa, fetid, offensive even to patient, Sang.

BROWN, like liver, Bry., Carbo v.
CASTS as from air cells, greenish white, Nit. ac.
CHEESE, taste of old, Cinch., Lyc., Psor.
COLD, often, Bry., Cor. r., Nit. ac., Phos.
COPIOUS, most abundant in the morning, Stan.
    green, fetid, purulent, Kreos., Sil.
    offensive, bloody, chiefly at night, Psor.
    thick yellow, globular mucus, Sulph.
CREAMY consistence, in later stages, of a, Caust.
DARKISH, semi-fluid, expelled with hacking cough, Arn.
DEGLUTITION, more painful during, Stan.
DETACH, scanty, difficult to, Alum., Caust., Hep., Kali b., Kali c., Stan.
DIRTY or muddy color flying when falling, somewhat resembling buckwheat batter, Phos.
DISCHARGE of an old catarrh, like the, Sulph.
EGG, like the white of, Nat. m., Silph., Stan.
EPISTAXIS and blood-spitting alternate, Fer.
    at same time or following and > headache, Ferr p.
EXPECTORATE, inability to, can't cough deep enough, Caust.
FALLS to the bottom in water, with a trail of tough mucus like a falling star, Cal.
FLAT, unpleasant taste, of a, Bry.
FREE in morning or free at night but not in daytime, Sep.
FROTH, yellow mucus enveloped in or mingled with, Ars.
FROTHY sputa, Acon., Apis., Ars., Fer., Lach., Phos., Sil.
    of pink mucus, blood-streaked, Ferr. p.
    pale red, rust colored, bloody, Phos.
    with yellow nucleus, Con.
GLOBULAR, grayish lumps of thick mucus containing clots of blood, Stan.
GRANULAR day or evening, none night or morning, Cinch.
GREASY offensive taste, of a, Sil.
GREEN, gray, purulent, offensive, excessively fetid, Sep.
    greenish, pus-like, Ars., Carbo an., Kali i., Kreos, Puls.
    mucus, like matter, < morning and evenings, Psor.

- GREENISH masses, of, Mang.
  - lumps or plugs of a sweetish taste, Sulph.
- HÆMOPTYSIS, anxiety with great, Acon.
  - after mechanical injuries, Arn.
  - better walking slowly about, weakness compels to lie down, Fer.
  - blood, bright red, frothy, Fer. p.
    - clotted, mixed with mucus or pus, Ars. i., Cinch.
  - body, violent from lungs and all orifices of, Aran.
  - bright red, pure, Ars. i., Bell.
  - cheeks and forehead burning hot, Bell., Mel.
  - chest, ebullition, burning and fullness in, Ars.
  - death, great fear of, with, Acon.
  - drunkards, in, Ars.
  - eruptions, suppressed with, Ars.
  - excitement, mental, from, Acon.
  - exertion from severe, Fer.
  - first dark, thin, light, watery, Fer.
  - florid, hemming, slight cough, or easy hawking, from, Acon.
  - fluids, after loss of, Ars., Fer.
  - foaming, bright red, bursts forth in a stream, with hawking, Ars.
    - bright red with burning in chest, Ars.
  - hands and feet cold, pulse irregular, but rapid and globular, Bell.
  - heat, burning all over, with pain between scapulæ, Ars.
  - scanty, bright red, coagulated, Fer.
  - inter-scapular pains, with, Fer.
  - masturbation, with weakness or pressing cutting pains in chest, after, Con.
  - menses, from suppressed, Ars., Fer., Puls.
  - morning on rising, or morning and night, Fer.
  - night, with burning heat over whole body, at, Ars.
  - nursing, women exhausted by, Cinch.
  - salty expectoration with, Cinch.

HÆMOPTYSIS, stitching pains through r. lung, and dry incessant cough, always ceasing when lying down, Mang.
  vertigo, eyes feel enlarged, with, Cinch.
  warmth, sensation of ascending to head, Bell.
  weak, is very, particularly after talking, Fer.
  winds, cold, dry, after exposure to, Acon.
  with tendency to copious expectoration, Stan.
HEAVY, night and morning, Ars. i.
HEPATIZATION, for the suppurative stage of, Lyc.
JELLY-LIKE lumps, falling in, Bry., Dig.
LOADED with mucus, chest apparently, must cough long before expectorating, Dul.
LOOSE, sounds, but no expectoration, Brom.
  unable to expectorate, swallows what is raised, Con.
LOOSENED, when, must be swallowed, Arn.
  unable to expectorate the, Kali c.
LUMPS, of small white or yellow, Bor.
  dark, black or bluish, Kali b.
  scanty, hard, tenacious yellow, a little sour, Sang.
  small, white or yellow, occasionally raises, Bor.
  thick, round, small, which fly in every direction, Lach.
MASSES, heavy, white, coming away in, Caust.
  hard, round, white, fly from mouth on coughing, Kali c.
  of greenish yellow mucus, Lyc.
    yellow mucus, Con.
  resembling pus, Kali c.
MORNINGS, during day, but none during night, Cal.
  without, evenings with scanty, yellow, jelly-like, expectorated with difficulty, Dig.
MOULDY taste and mouldy smell, of a, Bor.
MUCUS, tenacious, difficult to dislodge, with rattling in chest, Ars., Kali b.
  copious accumulation of in trachea easily thrown off by coughing, Stan.
  lumps of tough, reddish or bloody, Mang.

MUCUS, pieces of hard, like starch, by hawking, Sulph.
  profuse, frothy, tenacious, suddenly spits up, Lach.
  scanty, or profuse purulent, with, Sil.
  tenacious, abundant expectoration of, > the rattling breathing, Hep.
  thick, or blood clots, Bry.
    mixed with clotted blood, hawked up in quantities in the morning, Ars. i.
  white, like boiled starch, full of bubbles, Nat. m.
    streaked with blood, of, Bor.
  whole mouthful at a time, light rusty color, stringy and easily separated, Lyc.
  yellow, loosened with difficulty, Brom.
NUMMULAR, of thick yellow matter, Ars. i., Phos.
ODOR, that which sinks has an offensive, Sil.
  dense, muco-purulent, pus globules, musty, fetid, Sil.
OFFENSIVE, purulent, with straining even to vomiting, Lach.
PROFUSE, of water mixed with light colored, stringy, tasteless mucus, containing a few pus globules, Silph.
  and rapidly prostrating, Tub.
  copious, albuminous mucus, exhausting and emaciating, Cal.
  mucus, cannot lie down, Spong.
  of viscid, bloody mucus, Mer.
  transparent, albuminous, Alumen, Apis.
  tastes salty in the morning, Sep.
PURULENT, mixed with blood and thin yellow pus, Kali c.
  with exhausting night sweats and loose stool, Kali i.
PUS in large quantities, Lyc.
  whitish yellow, profuse expectoration of, Kali c.
PUS-LIKE, every cough brings up a mouthful of, Nat. s.
  gray, or yellow green, Stan.
  of an offensive taste and odor, Sulph.
PUTRID, salty taste, of a, Mer.
RUSTY, bloody, tenacious, Bry.
SCABS, green, are coughed up, Kali c.

SCANTY, adhesive, coughs long before expectorating, Mang.
  infrequent, difficult to detach, Bry., Hep.
  thin, frothy, with streaks of blood, Fer.
SLIMY, whitish or black, Cinch.
SOAP-SUDS, looks like, Kali i.
STICKY, cold mucus, Phos.
SWALLOWED, must be, cannot be raised, Arn., Caust., Con., Dros., Kali c., Lach., Mur. ac., Sep., Spong, Zinc.
STRINGY, tasteless, floating in the thin watery mass, which may be slightly purulent, Silph.
SUPPURATION of lungs or when neglected pneumonia degenerates into tuberculosis, Led.
SWEATS, night, profuse debilitating, Tub.
    and morning, profuse, debilitating, Mer.
SWEETISH, sour, salty, putrid, green during the day, Stan.
SYRUP-LIKE, ropy, Carbo an.
TASTE, putrid, like rotten eggs, especially after measles or scarlatina, Con.
  extremely disagreeable, Alum., Carbo an.
  sweetish, putrid, sour, worse evening till midnight, Fer.
THICK grayish, or greenish mucus, adheres to throat, Stan.
THIN, watery, milky mucus mixed with pus globules, Sulph.
THROAT, leaves mouldy taste in, Bor.
TOUGH as pitch, nearly strangles, Kali b.
  difficult to separate, Bry.
  glutinous, viscid; adhering to throat, mouth, lips; leaves the mouth in a long, stringy, tenacious mass, Kali b.
TRANSPARENT, glairy slime, mixed with black dots or bloody, Arn.
VISCID, loosened with difficulty, Cal., Bry., Mer., Sang.
  adheres to throat, detached with difficulty, the effort excites irresistable inclination to vomit, Stan.
YELLOW, more profuse in the morning, Cal. p.
  light or soft brick shade, Bry.
  of a foul taste, from the trachea, Stan.

# INDEX TO REPERTORY.

Characteristic .................................... 373

Aggravation .................................... 416

Amelioration .................................... 421

Larynx and Trachea .................................... 424

Respiration .................................... 434

Cough .................................... 444

    During .................................... 445

    Dry .................................... 447

Chest and Lungs .................................... 460

    Stitches in chest .................................... 468

        left chest .................................... 468

        right chest .................................... 470

Expectoration .................................... 472

    Hæmoptysis .................................... 474